GLACIER NAT. PARK
MONTANA
HELENA
IDAHO
BOISE
YELLOWSTONE NAT. PARK
WYOMING
FREMONT PEAK
NEVADA
GREAT SALT LAKE
SALT LAKE CITY
CHEYENNE
CARSON CITY
ESTES PARK
ROCKY MT. NAT. PARK
UTAH
DENVER
COLORADO
CEDAR BREAKS
BRYCE CANYON
ZION NAT. PARK
YOSEMITE NAT. PARK
RAINBOW NATURAL BRIDGE
MESA VERDE NAT. PARK
PUEBLO
GRAND CANYON NAT. PARK
SANTA FE
CALIFORNIA
ARIZONA
PHOENIX
APACHE TRAIL
NEW MEXICO
THE PACIFIC OCEAN
MEXICO

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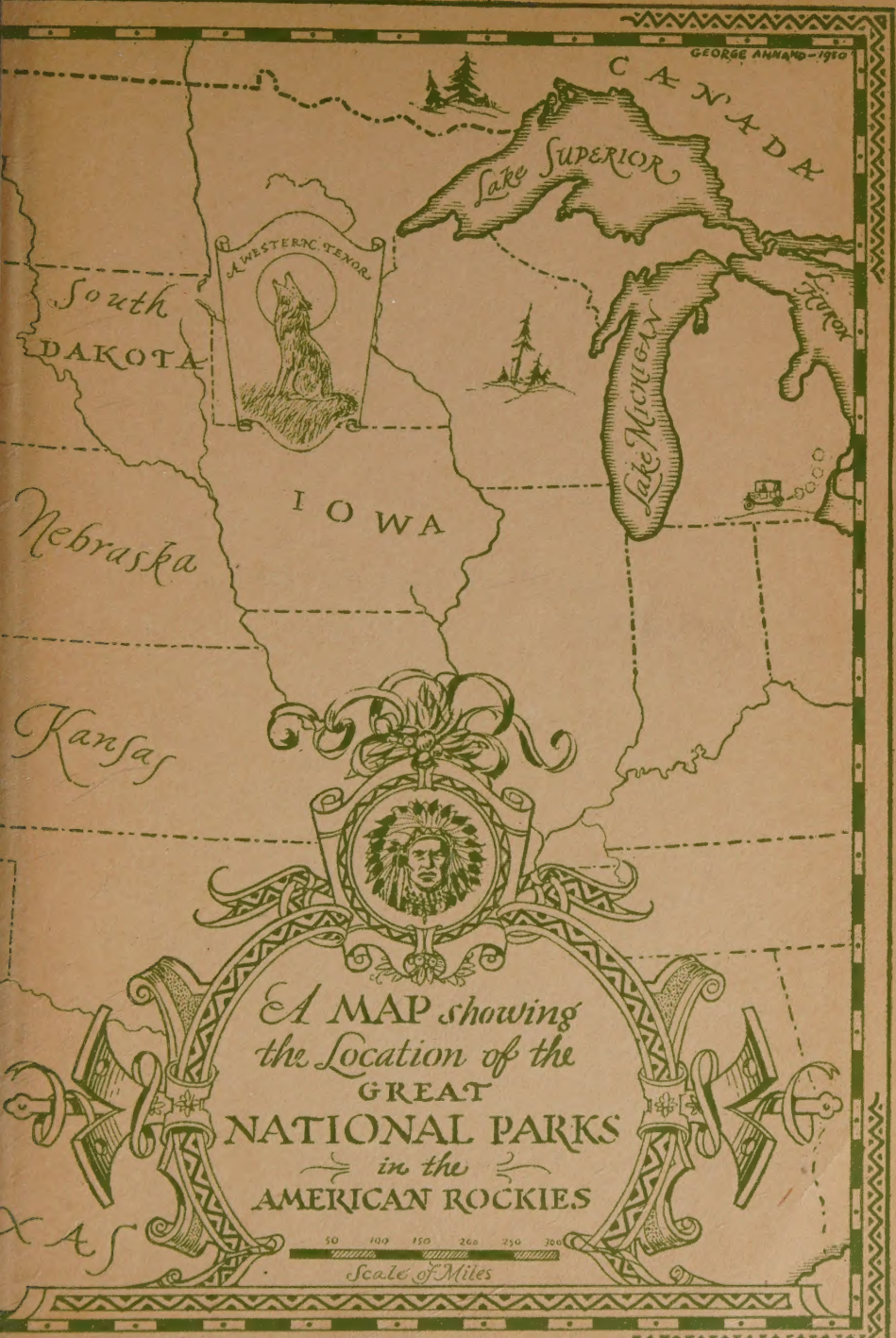
GEORGE ANNAND - 1910
CANADA
Lake Superior
A WESTERN TENOR
South
DAKOTA
Lake Michigan
IOWA
Nebraska
Kansas
A MAP showing
the Location of the
GREAT
NATIONAL PARKS
in the
AMERICAN ROCKIES
50 100 150 200 250 300
Scale of Miles

ROAMING THE ROCKIES

BOOKS ON TRAVEL

by John T. Faris

Winning the Oregon Country
The Alaskan Pathfinder
Old Roads out of Philadelphia
The Virgin Islands (with Theodore de Booy)
Seeing Pennsylvania
Seeing The Far West
Seeing The Sunny South
Seeing The Eastern States
Seeing The Middle West
Seeing Canada
The Romance of Forgotten Towns
Real Stories of the Geography Makers
When America Was Young
The Romance of the Boundaries
The Romance of the Rivers
Nolichucky Jack
Old Trails and Roads in Penn's Land
The Romance of Old Philadelphia
On the Trail of the Pioneers
The Paradise of the Pacific
Roaming the Rockies

Chimney Rock, on the Cody Road to Yellowstone Park

ROAMING THE ROCKIES

THROUGH NATIONAL PARKS AND
NATIONAL FORESTS OF THE
ROCKY MOUNTAIN WONDERLAND

by

JOHN T. FARIS

WITH AN INTRODUCTORY NOTE

by

HONORABLE HORACE M. ALBRIGHT,
Director of the National Park Service

FARRAR & RINEHART
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INTRODUCTORY NOTE

WHEN a book on the National Parks and other recreation areas of the Rocky Mountains can arouse interest and even enthusiasm among those whose lives are devoted to National Park work, it has to be good. Roaming the Rockies, by John T. Faris, stands up well under this test.

The ten National Parks included in the area over which Mr. Faris roamed and which he so ably describes, had 1,041,284 visitors during the 1929 season. The number of automobiles admitted to those ten parks during the same season was 258,841. When contrast is made of these figures with those for the season of 1925, for the eight of these ten parks then in existence—666,620 visitors and 149,614 automobiles—it will be seen how rapid the growth has been.

Especially marked during this same period has been the growth of the so-called educational work in the parks, as planned in coöperation with some of the keenest intellects of the country and carried on by park naturalists, ranger naturalists and others through lectures, camp-fire talks, and guided trips, and through our ever-growing system of museums. As a result of this type of service visitors return home with an intelligent enthusiasm for the park areas and the forces of nature involved in their formation, which in turn serves to stimulate further travel.

As Director of the National Park Service I am glad to commend Roaming the Rockies to both past and potential visitors.

HORACE M. ALBRIGHT,
Director, National Park Service,
Department of the Interior.

February 1, 1930.

ACKNOWLEDGMENTS

THE author would like to give the full list of those who gave their help to make his Roaming the Rockies a real delight. This is impossibe. But he cannot resist the temptation to tell of some of that wonderful company of out-of-door enthusiasts which assists the United States National Park Service and the United States Forest Service in making the princely reservations scattered everywhere over the Rocky Mountain country places of wonder for motorist, camper, fisherman, photographer, and other seekers for vacation joys and home life in the wilds. So he thinks with gratitude of W. Shepard, Acting Assistant Forester, Washington, D. C.; of R. H. Rutledge and E. C. Shepard of the Forest Service of the Intermountain District at Ogden, Utah; of Orange A. Olsen, Supervisor of the Dixie Forest, Walter M. Riddle, Supervisor of the Powell Forest, J. W. Humphrey, Supervisor of the Manti Forest, Walter G. Mann, Supervisor, and Robert H. Park, Ranger, of the Kaibab Forest, Clarence L. Forsling, in charge of the Great Basin Experiment Station; of S. F. Millsap, his guide across the Grand Canyon of the Colorado; of W. D. Cromarty, Superintendent, and Thomas Douglas, General Foreman, both of Waterton Lakes Park, Canada; of B. M. Keithley, Supervisor Pike Forest, V. Woodhead, Supervisor Routt Forest, J. V. Leighou, Supervisor Araphahoe Forest, H. L. Borden, Supervisor Holy Cross Forest, Andrew F. Hutton, Supervisor San Juan Forest; of Allen S. Peck, H. D. Cochrane, and John W. Spencer, of the Denver District Forest office; of Jesse Nusbaum, Superintendent, and M. C. Finnan, Chief Ranger, Mesa Verde National

Park, Clell Norwood, Superintendent of Aztec Ruins National Monument, Eivind T. Scoyen, Superintendent of Bryce Canyon and Zion National Parks, J. Ross Eakin, Superintendent of Glacier National Park, M. R. Tillotson, Superintendent Grand Canyon National Park, Edmund B. Rogers, Superintendent Rocky Mountain National Park, Horace M. Albright, until 1929 Superintendent Yellowstone National Park; (his successor there is Roger W. Toll) ; of Harry N. Burhans, long Secretary of the Denver Tourist Bureau, E. E. Jackman, Secretary of Chamber of Commerce, Colorado Springs, D. H. Anderson, Secretary Chamber of Commerce, Fort Collins, Eben Fine, Secretary Chamber of Commerce, Boulder, Richard T. Nelson, Secretary Exchange, Durango, W. W. Wood, Secretary Chamber of Commerce, Grand Junction; of James B. Roberts, Manager San Isabel Transportation Co., and Norman W. Baker, one of his assistants, and J. Frank Campbell, Cave of the Winds, Manitou, Walter F. Wheeler, Ouray, Dr. O. W. Randall, Eagle, Mr. and Mrs. Hugh Currie, Bayfield, F. A. Wadleigh, now of the Rocky Mountain Parks Transportation Company, Denver, for many years General Passenger Agent of the Denver and Rio Grande Western Railway, and V. S. Timpone, Walsenburg, Colorado.

Special mention is made of the author's indebtedness to Honorable Horace Albright, Director of the National Park Service, for ten years superintendent of Yellowstone National Park, whose courtesies there and whose advice in connection with the book have been invaluable.

The author acknowledges also the courtesy of Henry Van Dyke for permission to reprint his verses on The Grand Canyon, from The Grand Canyon and Other Poems, Copyright 1914.

JOHN T. FARIS.

Philadelphia, January, 1930.

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ROAMING THE ROCKIES

IN THE MIDST OF YELLOWSTONE'S GLORIES

THE rain was falling fast when the train drew out of Billings, Montana, bound for the Cody entrance to Yellowstone National Park. The passengers were disconsolate. "Rain for two days!" said a woman to her husband. And she settled herself for another day of misery; she was sure this was ahead of her.

Just then a young girl passed her seat. "Which is the sunny side of the car?" she asked the brakeman. "There ain't any sunny side to-day!" said the passenger who was determined to be gloomy. But the young woman sat down where the brakeman told her to go. As she fixed herself in her seat smiles replaced frowns on many faces. She could think of the sun when the clouds were heavy, could she? Well, they could also. They looked out on the Big Horn Mountains to the left, watched the turbid Shoshone River approaching, gliding by the track, disappearing around bends where bars had been formed by the mud-laden waters for flood-borne cottonwood logs to lodge upon; saw the more prosaic ridges as they withdrew now and then to give glimpses of the snow-clad peaks beyond. And before they knew it the rain ceased, the clouds broke, the sun peeped out, and smiles became as thick as scowls had been. But a few of the passengers had been smiling all the time, beguilded by the girl who, rich in faith, chose the sunny side of the car. At last all were ready to agree with the burly man who said, "Now ain't we glad we chose the entrance to the Park

that holds out the prospect of the longest ride and the most glorious scenery!"

Of course all do not agree with that choice. Some prefer to enter from the north, by Livingston and Gardiner, the oldest of the gateways. "I choose this route because the Park is not an anti-climax when the approach is so sublime." Yet there is wonderful beauty in the ride through Paradise Valley, by the banks of the Yellowstone, within sight of snow-clad mountains, now of the Absaroka Range, again of the Gallatin Range, through Gardiner Canyon, close to the Devil's Slide—a strange formation in the canyon that led early visitors to the charmed precincts that were not yet a Park to exclaim and admire.

Another northern approach which has its faithful partisans is the gateway from Bozeman, Montana, through the Gallatin Canyon, past mountains, through the Madison Forest, within sight of fascinating waterfalls, on to the Madison River—ninety-three miles of marvelous scenery. This, the newest of the gateways, has been opened in response to the insistent demands of those who, in numbers increasing each year, seek the Park in their own automobiles.

The last miles of the Bozeman way are also the final portion of the route from West Yellowstone, along the swiftly flowing Madison River—one of the three streams which unite to form the Missouri River—to the Madison's beginning, where the Gibbon and the Firehole River come together.

Finally there is the route from Moran, Wyoming, and Jackson Lake. For twenty-five miles the traveler is taken among the mountains before he comes to the borders of the Park.

The entrance from Cody is so different from its neighbors on the north, west, and south that it is difficult to

compare it with them. The beginning of the route is at Buffalo Bill's picturesque old town of Cody, where the road winds down to the deep valley of the Shoshone, then across to the plateau on the south side where proud residents have built the striking log structure which houses the Cody Museum. There relics are shown of the frontier guide of whom John Hays Hammond has said:

"I am proud, as an American, to pay tribute to Buffalo Bill. Of all the picturesque figures who made history in the stirring days of the Old West, he was surely one of the mightiest. His chivalry was questioned no more than his courage. He has now passed away, but the memory of his gallant personality lingers still in the minds of his countrymen. And there are a few of us yet who can boast of having known him.

"Buffalo Bill and his contemporaries brought law and order into that great territory which once swarmed with Indians and 'bad men.' By their fearless defence of the first stragglers from the East, they opened up the way for the great procession which followed, under the protecting arm of these old pioneers. The mine and timber lands and cattle country—all the vast resources of the Imperial West—were made available to the American people, who owe their unprecedented prosperity of today largely to the valiant policy of Buffalo Bill and his friends."

The Museum and the heroic equestrian statue of the pioneer, facing the mountain where he was eager to be buried, are close to the entrance of a great forest where he delighted to go on hunting expeditions—the Shoshone Forest, that glorious area of lakes and rivers, cliffs and mountains, where men go in search of big game, where fish are eager for the fly, and pack-horse trails stretch away, to west, to north, to south.

"I have a few hours to spare," a traveler said to the Supervisor of this Shoshone Forest. "Where can I find

a man who will take me over the roads through the forest in his automobile?"

"You won't find him!" was the smiling answer. "You see, there are no roads, with a single exception; one beauty of our forest is that the only way to explore its hidden recesses is by roughing it as we must do when business takes us into the woods."

The exception he made was the great Cody Road, avenue extraordinary through scenery indescribable to the gateway of a Park that is unique among the recreation areas of the world. This road is not only the entrance to Yellowstone; it is the favorite haunt of the people of Cody, who seek its beauty spots—how many of them there are!—along the banks of the Shoshone, by the side of the road. They go to the forest camps, in places set apart and equipped by the authorities, or they go to shady nooks of their own choosing in the tall trees; there they are permitted to remain so long as they obey the rules of the forest. Sometimes men fond of roughing it and women who delight in going into the wild leave the road for one of the trails of this, the pack-horse forest pre-eminent. They go among the fantastic shapes in the lava country, which extends south from Clark's Fork even to the Cody Road. They seek its well timbered regions, where game-fish hide in the cool streams, where are the big game herds—the moose, the elk, the deer, the big-horn sheep, the antelope. They even find a wild buffalo herd, in the vicinity of the Lamar River, a region which has become an important part of the Yellowstone Park. This is a genuine wild herd; it has never known captivity. Or they go south to the Greybull River, and find antelope feeding in the depths of the forest. But it is not necessary to go far from the Cody Road, in the search for game, for here is a game preserve—fortunately for the wild animals which flee to the south because of the

prowess of the hunters in the north of this oldest of the National Forests.

Once this wilderness was known as the Yellowstone Forest Reserve, but, while the name has been civilized, there is no intention of taming the forest. "We want to keep it a pack-horse forest," said the Supervisor. "Let those who seek our mountains take their time to the journey; they will find reward for all their effort. The mountains in the Shoshone may not be so lofty as those in Colorado, but they are just as inspiring, and many of them are more rugged."

But there are thrills enough for the average traveler along the Cody Road itself, as it follows the river that never freezes, because of the geysers in its bed which continually fill it with warm water. Near the river, close to the beginning of the road, are other geysers which would be famous but for the overshadowing geysers in Yellowstone Park.

These geysers are several miles beyond the peering bronze statue of Buffalo Bill, and within a mile of the entrance to the splendid Shoshone Canyon, guarded by towering Cedar Mountain on the left and Rattlesnake Mountain on the right. Once these must have been a single mountain, but ages ago the rushing river cut the mountain in two, and today they are sentinels at the beginning of one of the world's most splendid drives.

It is not easy to turn aside at the opening of this mountain canyon, but it would be a mistake to miss the curious cavern far up on the slope of Cedar Mountain, on the south side of Shoshone River. The way to Shoshone Cavern—which has been a National Monument since September 21, 1909—is by a switchback trail which climbs nearly one thousand feet within half a mile. At the end of the trail ladders lead up to the entrance amid beetling cliffs. From the entrance the cavern goes back into the

mountain about half a mile, among crystals, past mysterious side passages, through rooms that are enlargements of the main passage. There is always fascination in threading a cavern, and Shoshone Cavern provides the visitor with satisfying thrills as he follows the fault in Cedar Mountain which a bobcat disclosed to a pursuing hunter.

Then come even greater thrills as the road by the river —a road constructed at great expense; the most difficult mile cost $80,000—follows the canyon between Cedar and Rattlesnake Mountains. Who can forget Hayden Bridge, over the "Stinking Water," as the Shoshone was once known to those who treated it with familiarity, the tunnels which hide for a moment the wonders on either hand, only to lead to wonders still greater, or the steep climb above the boiling mountain stream, until the highway hangs dizzily four hundred feet above the flood?

Even those who have been prepared for what they are to see at the summit are startled by the stupendous work of art that impounds the Shoshone waters for the benefit of the ranchers in the Big Horn Basin of Northern Wyoming, where hundreds of thousands of acres may be irrigated from this flood in the canyon. Ten square miles of water are back of the dam flung across the canyon where its towering walls come close together. From that swaying suspension bridge above the chasm an idea may be gained of the immense task so well performed by the engineer. Better still it is to walk out on the dam, and so judge what is involved in the structure's height of 328 feet above the bed of the stream. Then comes the look back on the dam, after passing through a tunnel in the weathered cliff, and the look ahead, over miles of lake. The road ascends steadily. The mountains become lower and recede on either hand. Off to the left are the strange formations known as the Playground of the Gods, while

ranches and campgrounds reveal how manifold are the opportunities for making close acquaintance with the country of marvels.

Twenty-five miles from Cody the entrance to Shoshone National Forest is marked by Flag Peak and Signal Peak, on opposite sides of the river, while a bit farther on is the oldest ranger station in the United States. There the forest men live in the midst of three miles more of strange formations on the mountain side to the left, where the American game of giving fantastic names to natural formations has been indulged to the limit. Yet these names are really descriptive. The traveler who is passing over the road for the first time, who has never heard the name given to a particular formation, may burst out: "See the Turtle! Look at the Elephant's Head over yonder!" Thus he anticipates the disgusted driver who is in his element when he is pointing out the strange fantasies by the roadside, "sandstone silhouettes" they have been called by one who passed this way. "The red sandstone walls have submitted to the chisel of the Great Sculptor," this man says. "Sometimes he used the sun to blister off a boulder, and the rain to groove a crevice, and the frost to prize off a cliff, and the wind to etch down a wall."

On the north, some of the strangest fantasies are known as The Holy City, while a dozen miles farther on —miles of continuous delight—the highway clings close to the base of the Palisades, stupendous cliffs of varied form that dwarf the trees. At one place a mighty pinnacle, Chimney Rock, stands like a monument, its pointed top almost as close to the adjoining precipice as the base, where there is space for a man to pass through the narrow chasm, riven when the world was young.

From the mysterious region of the north, through breaks in the cliffs, and amid monumental trees, dash down tributary creeks with suggestive names. Trout

Creek makes the sportsman's hand tingle for the feel of the reel, and arouses the epicure to thoughts of gastronomic delight. Jim Creek talks of the pioneers, Grizzly Creek makes the flesh creep, Sweetwater, Clearwater and Moss Creeks give attractive pictures of pleasant places to camp and bathe, Fishhawk Creek tells of the famous glacier of that name ten miles away, while Eagle Creek tells of the trail that leads up into the big game hunting region. For countless years the Indians followed the way shown by the creek, as they used the passage followed by the Cody Road, a way marked out for them by the moose and the bear and the elk as they sought lower levels for the winter after a season in the highlands of what is now the Park.

Very likely the Indian boys and girls threw summer snowballs at one another and at their elders when they passed through Sylvan Pass—now the matchless boundary between the Shoshone Forest and Yellowstone Park—just as do their successors today. The way in the pass through the mountain, where snowbanks emphasize the color of the evergreens as they cling to the face of the rocks, on to the very summit, is a fit sequence to the Corkscrew Bridge, where the highway passes under, then turns abruptly and crosses over, turning again to complete the circle, thus making many feet of altitude in an inconceivably short distance. And after the pass comes the rapid descent of the west slope of the rugged Absaroka Range.

Not only was the original of the Cody Road an Indian trail, but most of the routes now followed in the Park were known to the Indians. To many of them, however, the park region was unknown territory. They spoke of the country as "The Burning Mountains." Some gave it a wide berth because of superstitious fear. Most of them remained away, however, because they had no special rea-

son to go to a region that was not accessible during nine months of the year, while dense forests and fallen timber made progress difficult during the summer. Early explorers tell how it was necessary for them to guide Indians through a territory which was to them unknown.

Yet Indians were found in the Park by the first explorers. These belonged to an obscure Shoshone tribe known as the Sheepeaters, because they lived on the mountain sheep which they caught by driving into brush enclosures. They preferred these fastnesses of the mountains because they did not like war, and there they felt reasonably secure. Even to them much of the country was unknown; in 1882 when General Sheridan took some of them to the Firehole Geyser Basin they were startled by wonders they had never seen.

The Park has been an Indian battleground. In 1877, when the disgruntled Nez Perces under Chief Joseph, retreating before their pursuers, set out for the buffalo country farther east, they entered Yellowstone Park. General O. O. Howard followed them, but he could not prevent their conflict with two parties of tourists who were in camp on the Firehole River. Indeed, they were not apprehended until they reached the Bear Paw Mountains several weeks later, after a flight through nearly four months, over 1500 miles of difficult country.

It seems strange that white men, too, knew nothing of the Park, even when they were familiar with the country on all sides of it. Difficulty of transit kept them away, as it kept the Indians. In 1806 Lewis and Clark passed very close; they camped near the site of Livingston railway station, to the north. One of their companions was that picturesque man, John Colter, who, a year later, left the explorers that he might learn more of the Yellowstone country. Hearing from the Indians in the Big Horn Mountains of a place "where the earth trembled, where

their children could not sleep, possessed by spirits who were averse to the approach of men," the intrepid frontiersman followed the Shoshone River, west through Sylvan Pass, southwest to Jackson Lake and the Canyon of the Yellowstone. When he found his way back to St. Louis, he told of his adventures to William Clark, who noted on the map of his exploration the lake, the river, and the canyon, even mentioning a hot spring and a boiling spring.

But little credence was given to the reports. Fur trappers said that Colter was drawing on his imagination; they had never been where he said he had gone. However, mute testimony to his claims as an explorer was given in 1889 when two woodsmen found, on a tree on the southern boundary of the Park, at the mouth of Coulter Creek, evidence of an old blaze grown over. When this was examined carefully they found the initials "J. C.," perhaps four inches high. They declared that the blaze was evidently about eighty years old. The discovery was reported, the tree was cut down by the authorities, but the blazed section was lost before it could find fitting resting-place in the museum for which it was destined. The explorer did well to deface the tree, for history's sake, but present-day travelers have no such excuse for what would now be nothing but vandalism.

Not content with casting doubt on Colter's veracity, trappers made sport of him by speaking of the Yellowstone country as "Colter's Hell," a name that stuck to it for decades. Survivals of that name were seen in the map issued by the Department of Indian Affairs in 1867, which spoke of "Colter's Hill," and in a map of the Territory of Montana, dated 1865, for this told of Coulter's Hall!"

An early description of the western country, by De Smet, contained the following gem:

"Near the source of the river Puante (Shoshone) which empties into the Big Horn, the sulphurous waters of which have probably the same medicinal qualities as the celebrated Blue Lick Springs of Kentucky, is a place called Colter's Hill, for a beaver hunter of that name. The locality is often agitated with suburban fires. The sulphurous gases which escape in great volume from the burning soil infect the atmosphere for several miles, and render the earth so barren that even the wild wormwood cannot grow on it. The beaver hunters have assured me that the underground noise and explosions are often frightful."

In 1827 *Niles Register* gave the first printed account of the wonderful discoveries about Yellowstone Lake, and when this was repeated in the Philadelphia *Gazette,* it aroused much curiosity in the staid Quaker City. So did the report of the visit, in 1829, of a party of Rocky Mountain Fur Company's employees. Joseph Meek, one of the company, from a low mountain near his camp, saw "the whole country smoking with vapor from boiling springs. The scene, he thought, was like that presented by Pittsburgh, though much more immense."

Again, in 1830, when agents of the same company visited the region, the famous Jim Bridger was among them. He found difficulty in believing the evidence of his own eyes, but this difficulty was nothing to that experienced when he reported to others what he had seen. On one occasion he drew a charcoal sketch of the country on a buffalo hide. This was supplemented by a vivid description. He told of "a lake sixty miles long, cold and pellucid, embosomed amid high and precipitous mountains on the west side in a sloping plain several miles wide, with clumps of trees and groves of pines. The ground resounds to the tread of horses. Geysers spout up 70 feet high, with a terrific hissing noise, at regular intervals.

Waterfalls are sparkling, leaping and thundering down the precipice, and collect in the pool below. The river issues from the lake, and for fifteen miles roars through the perpendicular canyon at the outlet. In this section are the Great Springs, so hot that meat is readily cooked in them, and as they descend on the successive terraces, afford delightful baths. On the other side is an acid spring, which gushes out in a river torrent; and below is a cave which supplies vermilion for the savages in abundance. Bear, elk, deer, wolf and fox are among the sporting game."

"Liar!" was the verdict of those who heard Bridger's accurate and vivid description. In vain the frontiersman tried to persuade others of his veracity. "At last, in disgust," (to quote the picturesque words of a loquacious modern Ranger in the Park) "he said, 'very well; I'll lie to you.'" And what stories he told them! Whereas he had been content to tell the truth about a petrified forest, he now decorated his tale by describing petrified elks in the forest, and petrified birds singing petrified songs. Once he told of coming to a precipice in the forest; his horse stepped into the abyss, but his expectation of being dashed to pieces was not fulfilled—for the very force of gravitation was petrified!

According to Alter, in his biography of Bridger, those picturesque lies were renewed and improved in 1859, when the men of Captain Raynolds' exploring expedition talked about the camp fire at night. Bridger outlied his companions by telling of petrified bushes which bore diamonds, rubies, sapphires, and emeralds, as large as black walnuts. Once a party of whites, pursued by Indians, were forced to travel at night. This would have been difficult but for the brilliancy of a large diamond on the face of a neighboring mountain; by its light they traveled in safety during three nights!

Slowly, however, the Bridger wonder-tales were given some credence. In 1842 the *Wasp,* a Mormon publication at Nauvoo, Illinois, told of a disbelieving visitor who returned with the word that "the half had not been told." Yet when a newspaper man put in type the assurance of Lieutenant J. W. Gunning—member of Captain Stansbury's party to the Yellowstone in 1850—that Bridger's stories were true, he decided not to print the story, since such tales could not be received on the testimony of a mere trapper!

Early in 1860 Captain Raynolds hoped to verify Bridger's stories, but was prevented by deep snows from visiting the mysterious country. Yet he insisted that Bridger was reliable; an uneducated man, as he was, could not have heard of the geysers of Iceland. "I have little doubt that he spoke of what he had actually seen," said the explorer. "I regard the valley of the Upper Yellowstone as the most interesting unexplored district in our widely expanded country." So in the map of his expedition he showed the lake, the river, and Burnt Hole (the Geyser Basin) with approximate correctness.

The man who was called a liar by most of those who knew him found another believer in N. P. Langford, who, in 1866, talked with Bridger while he was driving through Montana a wagon team in an emigrant train. "He told me in Virginia City, Montana, of the existence of hot spouting springs in the vicinity of the source of the Yellowstone and Madison Rivers, and said that he had seen a column of water as large as his body, spout as high as the flagpole in Virginia City, which was about sixty feet high. The more I pondered the statement, the more I was impressed with the probability of its truth. If he had told me of the existence of falls 1000 feet high, I should have considered his story an exaggeration of a phenomenon he had really beheld, but I did not think his

imagination was sufficiently fertile to originate the story of a spouting geyser, unless he had really seen one."

But in 1871, when Langford published his stories of the Yellowstone in *Scribner's Magazine,* a newspaper comment insisted: "This Langford must be the champion liar of the Northwest." His stories were "regarded as the amiable exaggerations of an enthusiastic Munchausen, who is disposed to tell the whole truth, and as much more as is necessary to make an undoubted sensation, than as the story of a sober, matter-or-fact observer, who tells what he has seen with his own eyes, and exaggerates nothing."

The article which led to the reviewer's skeptical sentence was written after an exploration of the country by a party of men from Montana, including territorial officials. After telling in detail of things seen—including Old Faithful which was named by the party—Langford concluded:

"We had seen the greatest wonders on the continent, and were convinced that there was not on the globe another region where, within the same limits, nature had crowded so much of grandeur and majesty with so much of novelty and wonder."

But strong testimony to the credibility of Langford was given in *Scribner's Magazine* in 1871, by F. V. Hayden, investigator for the United States Geological Survey—in whose party, by the way, was Thomas Moran, painter of the stupendous picture of the Canyon of the Yellowstone now in the Capitol at Washington. After declaring that the previous account had not been exaggerated, he wrote: "Why will not Congress at once pass a law setting it apart as a great public park for all time to come, as has been done with that not more remarkable wonder, the Yosemite Valley?"

The first definite suggestion came from members of the Washburn exploring expedition of 1870. While in camp

at the junction of the Gibbon and Firehole Rivers, one of the company spoke of the possibility of profit through the discovery; he said that it would be a good speculation to take up the land around the natural wonder. But Cornelius Hedges insisted that private ownership of any part of the region ought not to be thought of; it should be set apart forever for the unrestricted use of the people.

On the return of the party to Helena, a series of articles were published in a local paper. In one of these, on November 9, 1870, Mr. Hedges urged the National Park project. As a result of the publication, the New York *Tribune,* on January 23, 1871, urged that this new field of wonders should be at once withdrawn from occupancy, and set apart as a public National Park.

Soon a party from Helena appeared in Washington with a bill providing for Yellowstone National Park. As a part of the campaign they laid on the desks of members of Congress four hundred copies of *Scribner's Magazine* containing the article by Langford. Their efforts were effective; on March 1, 1872, the Park was set apart, though, unfortunately no provision was made for the prohibition of defacing natural scenery in the reservation, or even for its upkeep. The first superintendent was given no appropriation for expenses!

Until the completion of the Northern Pacific Railway, early visitors to the new reservation for the people were obliged to approach it by tedious journey overland. Those who would like a vivid picture of the adventures of one of these first visitors should read "The Great Divide" by the Earl of Dunraven, who sought the Yellowstone in 1874, when there were no roads, and no trails except those used by the Indians; when the only shelters were those carried with them by campers. Dunraven went to Ogden by the Union Pacific, then to Corunna, 32 miles west; then by stage to Virginia City, 330 miles; then by pack train to

Lower Geyser Basin. When he returned to Ogden he had traveled more than one thousand miles. But the jouncing of the burros did not deprive him of his powers of appreciation. He wrote:

"All honor to the United States for having bequeathed as a free gift to man the beauties and curiosities of 'Wonderland.' It was an act worthy of a great nation, and she will have her reward in the praise of the great army of tourists, no less than in the thanks of the generations yet to come."

By the way, Dunraven was something of a humorist. In the story of his journey he said:

"I never have an adventure worth a cent; nobody ever scalps me; I don't get 'jumped' by highwaymen. It never occurs to a bear to hug me. And my very appearance inspires feelings of dismay or disgust in the breast of the puma, or mountain lion. I am not drowned or overwhelmed by sudden floods. I don't slide down precipices and catch by the seat of my breeches on a spike just as I am falling over a cliff 40,000 feet high . . . If I drew upon my imagination, the draft would probably be returned, with 'no effects' written across the face of it."

Conditions in the Park were still most primitive in 1875. William Ludlow, after a trip, told of traveling with a pack train. Tents were left behind; only tent flies were used. A six-mule team carried baggage, of which an important part was made up of a bundle of scientific instruments, wrapped in bedding, and a basket of instruments strapped to the spring-seat of the odometer cart. He spoke of a company from Bozeman that had obtained a charter for a toll road from that town to Mammoth Springs and had made the way practicable as far as a toll bridge. There wheels had to be abandoned, and bridle paths followed. But these difficulties did not blind his eyes to the facts. This is the way he stated them:

"The park scenery, as a whole, is too grand, its scope too immense, its details too varied and minute, to admit of adequate description, save by some great writer, who, with mind and pen equally trained, could seize upon the salient points, and, with just discrimination, throw into proper relief the varied features of mingled grandeur, wonder, and beauty."

Transportation and accommodation continued primitive until 1884, when W. W. Wylie, Superintendent of Schools at Bozeman, sought the park by stage, with camping parties. For a time he conducted permanent camps for ten day periods. These rather primitive accommodations were provided here and there, and a tour of the park by stage was arranged. For a long time seven and eight days was the minimum time required even for a hasty tour of the chief points of interest. Gradually roads were improved, hotels were built, and in 1917 the stage yielded to the automobile bus. Now the tour can be made in half the time, with far greater satisfaction. And tourists have not only the hotels, but the privilege of going to the camps where they occupy delightful cabins and where they meet with every consideration.

Those who travel in their automobiles find that provision is made for them in many campgrounds, where they can pitch their tents, go to the regular cabins, or rent at a nominal price cabins where they can keep house for a day, a week, or a month, at an expense so moderate that most tourists are delighted, while some day they are ashamed to pay the charges.

Those who today enter what was once a land of volcanoes, but now is a land of reminiscent geysers, if they come by the Cody Gateway, are apt to spend the first night on the shore of Yellowstone Lake, one of the five highest lakes in the world, only Titicaca in Peru, a lake in Bolivia, and Manarasarowak and another lake in Tibet

being larger and higher. A mile and a half high, this gem of the Park covers 139 square miles. Once, however, it was more than twice as large. Then it drained through Snake River into the Pacific Ocean. But as the glaciers melted, and the outlet to the south was stopped up, it overflowed its banks on the north and was reduced to its present size. But surely such a placid blue lake, with a shore line of 100 miles, and a maximum depth of 300 feet, has no reason to regret the greater glories of the past. It is glory enough to be the source of such great rivers as the Yellowstone, the Missouri, the Snake, and the Green. An excursion worth while follows the shore of this mountain mirror, while many find delight in a sail on its surface, between the Absaroka Mountains on the east, and the Continental Divide on the west; the completely level region to the north through which the Yellowstone flows to the Falls and the Canyon, and Mt. Sheridan on the south. Another excursion which many choose is to Molly Island, in the southeast arm, where several hundred white pelicans have their nests, the most eastern breeding ground of this odd bird. The choice time for a lake excursion is in June, when snow is on the Absarokas, or at the season of full moon, when the pines on the shore add such weird charms to a scene that impresses itself indelibly on the memory.

Chapter II

FROM THE GRAND CANYON TO THE GRAND TETONS

The brief journey down the Yellowstone, along the bank of the great glacier-fed stream of ages ago, begins at the Fishing Bridge where the river leaves the lake. How easily the sportsmen succeed in landing the fish that swim in its waters! The fascinating picture of this angler's paradise is soon erased by the sight of the Mud Geyser by the side of the road, the paint pots, and the Dragon's Mouth Spring boiling out from the cliff.

Then across beautiful Hayden Valley, and along the narrower valley of the Yellowstone to Chittenden Bridge, which may be crossed by those who go to the Canyon Lodge. Many choose to keep on to the Canyon Hotel, but those are fortunate who prefer the lodge—especially if they are assigned to cabins along the river which look out on the upper Falls at the beginning of the Canyon or across at Crystal Falls, where a stream enters from a small tributary canyon.

Life at the lodge is more informal than at the hotels, and many travelers do not care for it for this reason. Yet the average vacation-seeker is eager for the informality. Then, too, he likes to meet the college boys and girls whom he is apt to see at the more popular resorts. "They don't want us at the hotels, though," a waitress who wore a Phi Beta Kappa pin said to a guest; "any woman who goes there is apt to be peevish if a bowl of soup is emptied down her neck."

These college students are everywhere, seeking funds to carry on their studies, and, incidentally, vacation experiences that will brighten the years before them. They are found, too, in camps, in the ranger stations, and driving the great buses that carry the tourists through the Park. They greet the incoming guests with songs, they bid tender farewells to those who take departing buses, they insist with irresistible effrontery, "Bride and groom, stand up! stand up!" A waitress learns her job so quickly that she is not afraid of making the second time the mistake of serving dinner without offering meat. And what delightful evening programs these students give in the entertainment halls and the lodges! In fact, they are chosen for their work with a view to their ability to entertain, as well as their looks and their alertness.

They come from Occidental College and Heidelberg, these students, from Huron and Wisconsin State, from Iowa State and Brigham University at Salt Lake City. "I'm from a little college in Arkansas of which you never heard," one hostess said, in answer to an inquiry. How pleased she was when she found that even her institution was familiar to the questioner!

A ranger was standing guard by the road below Upper Falls. "I'm here to keep people from parking their machines when they stop to view the Falls," he said. "I come from Kansas State University, and I think it is a great life. There are a lot of us students here. Most of us have been here for several years."

At the Ranger Station near by a sturdy man in uniform proved to be a Professor of History at an Eastern university. "I'm here, primarily, to lose thirty-five pounds," he explained. "I think I'll do it, too, what with washing windows, cutting down trees, and a lot of other odd jobs for which they look to me. I know a man who came because he hopes to put on twenty-five pounds. There's a

cowboy here because he likes to feel that there is no ceiling over his head. Another man is getting local color for a book. And so it goes!"

The Ranger who guarded the no-parking area told of automobile tourists who, because they are in a hurry to reach some point farther on, are in danger of passing without a glance at the Falls or the Canyon. It has become necessary to hand to them a folder which begins with the warning plea: "Do not turn left at Canyon Junction toward the Geysers until you have seen the Grand Canyon, which is less than a mile away. We insist that you see those great spectacles, Artist Point and Inspiration Point."

It is passing belief that, in spite of the fervent appeal, travelers persist in keeping on their way, careless of the presence so near them of the gigantic gash cut in the mountain by the waters of Yellowstone Lake as they sought escape from the basin a few miles to the south. The rapid descent of the waters, leaping over two precipices—the second twice as high as that at Niagara—dashing over rocks that make awe-inspiring rapids; the rugged, precipitous sides of the ever-deepening Canyon; the rocky islets in the rapids; the pines clinging to the sides; the indescribable coloring of the walls—what a panorama is waiting to be unfolded before the eyes of some who persist in hurrying on to another point of interest! It must be said, however, that haste is due often to ignorance. "What river is this?" a man asked, when near the Upper Falls. "You say there are two Falls, and a Canyon? I didn't know it. They did tell me down in Utah that there were some things here worth seeing. So I loaded my folks into the bus, and drove up."

"This is the climax of earthly grandeur!" was the verdict of a visitor in the early days of the Park. First the Upper Falls, where the flood tumbles 109 feet, with its

coloring of green and white and lavender, and the spray below, up, up toward the brink of the precipice over which the water leaps. How fortunate that the rock at this point is too hard to be worn away! Otherwise the Canyon would have receded to the Lake, and the Lake would have disappeared!

Then the Canyon between the falls, with its twisting, writhing waters and its steep bounding precipices; the Lower Falls, 308 feet of sheer drop down, down, down to the lower regions; and finally that passage of the river for miles between the colorful rocks that are too fascinating to leave!

What a vision of tumbling water is given to those who stand on the platform just at the brink of the Lower Falls! There is not so much foam as at the Upper Falls, but the greenish water is in evidence, the leap is more abrupt. And down below, the Canyon!

A week may be spent easily on the four or five miles of the river below Upper Falls. But however brief the stay the visitor should stand on Inspiration Point, where he looks more than a mile upstream to the Lower Falls, then downstream to the place where the Canyon ends, and over to Artist Point, across the Canyon. No words can tell what he sees. The vision may be limited by the side of that which comes to those who stand on the brink of the Grand Canyon of the Colorado. But the Canyon of the Yellowstone has a glory all its own. Those great walls, those tree-crowned heights, those waters of amethyst and green and purple, or bronze and maroon and yellow, varying with the light, those erratically shaped crags! On one crag is an osprey's nest; the great bird whirls about in the Canyon in circles. Some of the first visitors to the Canyon told of an osprey's nest on a crag. Was it this very nest? Far below the green of the pines—1200 feet down—churns the rapidly flowing water of another shade of

green. In 1875, when Captain William Ludlow had been here, he wrote: "The view of the Grand Canyon from the point where we stood is perhaps the finest piece of scenery in the world. I can conceive of no combination of pictorial splendor which could unite more potently the two requisites of majesty and beauty."

Two thousand feet across the Canyon, and a little farther upstream, on the southern rim, Artist Point offers a second place of vantage for those who would see the glories of the Canyon. The best time to stand there is at sunset, when the rays bring out the coloring of the rocks across the way. Off to the left the Lower Falls drop their burden of water into the depths. The Canyon walls rise in majesty above the hurrying stream that grinds its way along as if angered by its confinement to such a narrow space. Below are the pinnacles of many-colored rocks that seem like miniatures of the structures that rise from the depths of the Grand Canyon of the Colorado. Opposite are the walls of varied hue that give the name to the spot. Farther down stream the walls become higher, and the coloring is richer, on the north, while on the south the prevailing brown tints give character of their own to the beetling crags that rise from the steep slope of the precipice. Beyond, a bend in the Canyon marks the disappearance of the torrent; but the interfering wall from the north—just below Inspiration Point—as it crosses toward the south, is so much lower that beyond much more of the Canyon can be seen clearly. There, however, the walls have less coloring, but they rise in grandeur still higher above the river.

At Grand View, directly across from Artist Point, the Falls cannot be seen, but even so the prospect is splendid. Ospreys swooping far below, the winding flood rushing to the region beyond, the impressive walls—surely this is enough to satisfy any reasonable visitor.

"You call them ospreys, do you?" a visitor said to a Ranger. "I thought they were eagles."

"In some ways they are like the eagle," was the reply, "but in important particulars they are different. The eagle is a proscribed bird in the Park, for he is a robber. The osprey is a good bird. The male bird builds the nest of sticks as big around as a man's wrist. The female bird decorates the structure. The male spells the female in setting on the eggs. When the young are eager to eat, the male goes for fish into the Canyon. As he brings in his catch, he carries it lengthwise, so as to have the least possible resistance from the air. The eagle tries to rob him on the way. If the osprey escapes the eagle, he cleans the fish before presenting it to his wife and children. Next he divides it into portions, as many as there are eaters. Like well-trained children, they will not say a word or make a movement until their bits are offered to them."

No one said a word in contradiction to the Ranger's natural history facts!

Nor did anyone venture to contradict a pioneer who told his story of the Canyon. Pursued by six Indians, he managed to beat off five of them with a six-shooter. "We was nearin' the edge of a deep and wide gorge," he went on with the story. "No horse could leap over that awful chasm, an' a fall to the bottom meant certain death. I turned my horse suddent as the Indian was upon me. We both fired to once, an' both horses was killed. We engaged in a han'-to-han' conflict with butcher knives. He was a powerful Injun—tallest I ever see. It was a long and furious struggle. One moment I had the best of it, an' the next the odds was agin me. Finally—"

Here the man paused, as if for breath.

"How did it end?" was the breathless inquiry.

"The Injun killed me!" was the solemn reply.

Within a mile of the spot of which was told such a

truthful tale, a trail through the wood between the Falls invited one visitor to wander. There was no one to stop him but a squirrel chattering on a tree above his head. He waited for a conversation with the squirrel, and a groundhog came from a hole under a tree. A pretty bird, with red head, canary body, and black wings, also made an investigation, and added to the chatter. Then a chipmunk joined the company of inquirers. Tourists paused on the road above, looking down curiously to see what was going on in the forest glade below. After a few moments the pedestrian left the little menagerie, passed out of sight of the road, stepping over fallen timber, and through snowbanks that were still there, though the time was late June. He could imagine himself wandering through the trackless forest, as did Thomas C. Everts who, in 1870, was lost for thirty-seven days in the Yellowstone wilderness, as he told the story so graphically in *Scribner's Magazine* for May, 1871. But Everts would not have felt as easy in mind if he had encountered the black bear, foraging for his two cubs, which stared curiously at the modern tramper in the forest.

But there was not much time for the exercise of the imagination, for the pines ended abruptly at the brink of the Yellowstone, where the water boils down to the Lower Falls in a rapid that looks more like the whirling tide of the Yukon whose White Horse Rapids confounded the gold seekers of 1897. Just below the bridge those rocks in the rapids, like piers to a bridge, are reminiscent of the Five Finger Rapids, on the lower Yukon, another of the spots dreaded by the men who were so eager for gold. On two of these rocks lone pine trees grow sturdily. What a story those waters might tell of Indians whose trails led them this way!

Perhaps the best view of the rapids is from the highway bridge that crosses just where the waters take their

first leap from comparative quiet over on the rocks to begin the mad scramble to the Falls. The waters look rather terrifying, but a man in the National Park Service said that when, the night before, he was given quick choice between an encounter with bears which came his way, growling with anger, and the probability of wrestling with the water, he chose the latter. "It was dark, and it was raining, but I had heard some one across the bridge anger those bears, and I was not taking any chances. I leaped the railing and clung to the supports. The bears went on, and I climbed back."

Next morning, on the road approaching this same bridge, a big black bear came out of the woods just when a car stopped, and the driver stepped to the rear to busy himself with the luggage. The window by the side of the wife was open, so the bear rose on his hind legs and stuck his nose through, almost in her face. She was so quiet that a passer-by thought she was enjoying the bear's friendliness. When something startled the beast, he dropped to the ground. "Shall I tole him back to you?" the passer-by asked. "You seemed to be enjoying his presence." "Oh, no!" pleaded the woman. "I was not enjoying him; I was so completely scared that I was motionless!"

The bears in the Park are not always as tame as they are pictured. And their readiness to forage is not always as amusing as it might be thought—as, for instance when a fisherman on the bridge near the lower end of the Lake was rejoicing in the string of trout in his possession. "I'll stop," he said, "I've ten fish—the limit for the day." After putting away his tackle, he turned to pick up his fish, and lo! Mr. Black Bear had made away with them. Similarly disconcerting was the experience of a family of campers which had been enjoying the antics of Speed, a bear which had won renown by his ability to hold up the

passers-by. Suddenly the call, "Old Faithful is about to play!" led mother, father, and all the children to forsake the camp table for the more engrossing spectacle. When the geyser exhibition was over, Speed was having the time of his life among the eatables that had fallen from the overturned table!

"One day I saw an angry tourist who had left his car by the roadside while he went into the forest to pick wild flowers," a Park guide tells the story. "He got his dues for breaking the rules, for when he returned to his car he found Sir Bruin seated comfortably after the repast he had made on the food in the automobile!"

One Ranger tells tourists that bears in the Park have been seen training their young to hold up cars for food. This is not always so innocent as the first lesson the mother bear gives her cub—to climb a tree. Perhaps, however, the latter lesson is a "safety first" measure, to be resorted to when tourists are angered by depredations!

"I have just one fault to find with this country!" said a man in a party of campers near Madison Junction; "I haven't seen a bear close up." The party's cook resolved to give him his desire. Taking a can of syrup, he poured it around the hole where garbage was thrown, then left a trail of the sweet stuff to the cabin of the man who longed for a new experience. Then the can was hidden under the man's bed. About midnight the bear came. And the man yelled for help. He had seen the bear!

When the tourists have departed, the bears go into winter quarters. Usually they hibernate from November to April or May. Before going to sleep they eat bark or needles. When they come out in the spring the adult bears are careful as to their eating for eight or ten days. "I have seen meat offered to a bear which had just come out," a Ranger said, "but she would not touch it. Instead

of meat she turns to medicinal herbs, and solicitously lays them before her cubs."

The heavy forests to the north of the Canyon are full of good hibernating places. Rocks and fallen trees are everywhere. "Why don't they clear up the rubbish by the roadside?" a visitor asked an official. "If we had a few hundred thousand dollars we might make a beginning," was the reply. "In fact, we have made the beginning, but it is nothing more. A year or two ago Superintendent Albright was asked by a wealthy man in the East the very question you have put. He was told that experience only would show the cost, but that there was no appropriation for the trial. 'Then clear up two half-mile sections, and send me the bill!' he wired. So the work was done, and the results were most pleasing."

Forests add to the beauty of the road which climbs from the Canyon toward Mt. Washburn. What a view of the mountain the road provides! And how fortunate are those who are able to take the road to the summit during the very brief season when the snowbanks allow transit! In 1875 William Ludlow said that from the mountain the whole panorama of the Park sprang into view, even to the Tetons far to the south. And those who have followed him to the point where the fire-lookout has his cabin have echoed his exlamations of delight. What a vision of green they behold as they look at surrounding mountains and forests, with the Canyon cutting like a great gash through the green!

Off to the northeast of Mt. Washburn is a section of the Park where trail parties go in search of such wonders as the strange fossil forests on the bank of the Lamar River. These are not at all what would be expected of such forests, for they are in a cliff two thousand feet high. And in the cliff there is a succession of forests, one above another—so many of them that geologists have been as-

tonished by the revelation. The first forest was covered by an eruption; then came a second forest, a second eruption; a third forest, a third eruption, and so on. Elsewhere in the Park fossil trees may be found standing out from the plain in more commonplace fashion—as, for instance, near Camp Roosevelt, in the vicinity of Tower Falls, that inviting reservation for those who seek a little rougher life than is provided at the hotels and the lodges. Here, in 1903, Theodore Roosevelt had his time of wilderness life with his friend, John Burroughs.

But before the traveler comes to Tower Falls there is that delectable passage through Dunraven Pass, 9700 feet high. What a view is provided there, both to left and right, and then beyond, to the gap between the mountains through which the Yellowstone passes! Surely the name given by the Indians to this region—The Roof of the World—is abundantly justified.

Indian and pioneer alike stood in rapt admiration before a marvel near the road some distance beyond the pass—Tower Falls, where the waters of a tributary leap 132 feet into the Yellowstone. Mountain meadows and beaver dams round out the tale of wonder in this favored region.

A few miles more, and the road leads to the still greater marvels of Mammoth Hot Springs. That is a breathtaking view from the road below Jupiter Terrace. Some visitors are content with this, when they might so easily have much more, by climbing Terrace Mountain and becoming familiar with hidden secrets. The best way to seek these hiding places is on foot. "At Mammoth the bus is the better way to go," wrote one enthusiast. He was in error. The bus is good, and the visitor's own automobile is helpful. Better still, however, is the easy Terrace Trail, which ascends almost from the lodge door

along the south side of Jupiter Terrace, the largest hot spring terrace formation in the world.

Even from the lodge entrance the gigantic formation looks as if the photographs misrepresent it. Where is the coloring? Where are the snowy deposits? Does the hot water really flow down in cascades? The rising steam hides at a distance what may easily be distinguished by those who walk so close to the formation that they are warned frequently not to step to the right.

How inviting the water looks! What a revelation comes with the knowledge that the building of the terrace may not have been such an age-long process as geologists tell us was the case with the stalactites in Luray Caverns or Mammoth Cave! Here we are told that the deposit grows at the rate of "a sixteenth of an inch in three or four days." With scientific caution the calculation is not made—officially, at least—that this is at the rate of perhaps six inches a year!

The carefully prepared signs placed by the National Park Service, on Jupiter Terrace declare as to the formation:

"It is composed of travertine, chiefly calcium carbonate, which is deposited from the water. The coloring material is composed of microscopic plants, chiefly *algae*. A few sulphur bacteria are found at the orifice, where the water is hottest (165°F). Deposition here is much more rapid than at the geyser basin, where the material is siliceous sinter."

When the summit of the terrace is reached the cloud of steam hides the stepping-off place, and the impression is that the view is out over a great plain on a very foggy day. But the rising sun on the longest day of summer disclosed the height of Mt. Everts across the valley. What a picture that sun revealed! The first evidence of the arrival of the light was on the green slope rising in ter-

Yellowstone Lake

Lower Falls of the Yellowstone River

Angel Terrace in Yellowstone National Park

Excelsior Geyser Basin and Firehole River, Yellowstone National Park

races back of the springs, the top hidden in mists which seemed like the reluctant leave-taking of the storm-clouds that had hung overhead so long.

Dainty beyond description are the little terraces that are forming daily on the plateau at the summit. The water—so hot that the hand cannot be held in it—bubbles up here and there, flows down into pools, drops into little caverns, everywhere leaving behind it the coloring due to the accommodating little *algae,* which usually do the work in much more commonplace locations, like horse troughs or small ponds. Sometimes the deposit is white as snow; again, with a demarcation as distinct as when the rather clear Ohio meets the atrociously muddy Mississippi, the colony of the minute insect begins.

A park of stunted evergreens on the first slope above the terrace plateau leads to Angel Terrace, where the formation has grown—in steps that look like a Japanese rice garden—about a grove of trees. Some of the trees are buried half way to the top; on others the deposit is just beginning. One tree has fallen, broken off six feet from the ground, and one fallen trunk is already partly buried in the lower terrace.

The visitor is informed that these trees—of course they are dead—will not become petrified, but will be preserved for some time by the travertine, which is building up about them. In the meantime other trees in the grove wait with stunted resignation the stealthy approach of their doom.

The temptation to utilize the terrace as a staircase to climb to the bubbling water must be resisted, because of urgent requests which might bring penalties if disregarded. A safe and unforbidden way may be taken to see the inviting bath tubs and the unusual coloring of the portion of the terrace still higher up, where the *algae* are most active in their partnership with the water that boils

up at the top and flows sleepily down, leaving a trail of violet and yellow, red and brown. But why describe the coloring? No two visitors will agree in any description, though all will say that it is exquisite.

Again the trail leads up. It is easy to imagine that this is the ascent of the final ridge. But there is another beyond this. After the manner of mountains, a fashion rather trying to ambitious but weary climbers, there is usually something beyond! The goal is the magnificent relic of an extinct hot spring, The Devil's Kitchen. The pedestrian is waved from Poison Cave, for this gives off a gas that suffocates birds, mice and squirrels, but is invited to The Devil's Kitchen, the only cave in the neighborhood which is safe to enter. The fact that bats may be heard squealing in the dark recesses beyond the wayfarer who descends the steps down into a fissure in the rocks shows that the carbonic gas is not present here. The straight and narrow way is easy of descent, but when the steps end progress become too difficult for comfort.

Still beyond is a formation called The White Elephant, for some reason best known to the christener. Here are the marks of the hot water of long ago. Today a little cold water drops into the grotto beneath. But there is no sound of bubbling water; nothing but the chatter of the squirrels and the singing of the birds. Here and there steam rises from hollows; evidently there is heat somewhere.

Every mile of the way from Mammoth Hot Springs to the various Geyser Basins has beauties to ffer. But many will remember longest the great obsidian cliff on the right, the mountain of volcanic glass where the Indians were accustomed to find material for some of their best weapons. Here is the scene of another of Jim Bridger's tall stories. He said that one day he shot at an elk that seemed to him to be very close. To his astonishment, all

his shots failed; the elk still fed calmly. Unaccustomed to fail in his shooting, Bridger investigated, and found a mountain of glass before him. After feeling his way around this, he saw the elk at which he had shot was feeding four miles away. The glass mountain that revealed the animal had magnified it!

Perhaps the cliff was the scene of another of veracious Bridger's experiences. Beyond the camp rose "the bald platform of a mountain, but so distant that the echo from any sound which originated in camp did not return for the space of about six hours. Before retiring for the night he would call out loudly, 'Time to get up!' True to his calculation, the message would roll back at the precise hour next morning when it was necessary for the camp to bestir itself."

Then the Geysers! There are three main groups of these marvels, and there are in all some fifty geysers that eject hot water at various intervals and to varying heights. Some are inactive, but there is sufficient action to keep the visitor on the move. Sometimes he must be content to study the formations, while he watches for movement, with, frequently, the result that comes to those who watch the pot that is expected to boil. Then again so many geysers pop off at the same moment that a high-powered automobile is necessary for travel from one to the other in season to see the exhibition.

Thousands have written descriptions of what they have seen at the geysers, but none has excelled William Ludlow who said, in 1875: "Nature abandoning for the time all thoughts of utility, seems to have been amusing herself in this far-off and long hidden corner of the world by devoting some of her greatest and most mysterious powers to the production of forms of majesty and beauty such as man may not hope to rival."

Then he went on to mourn the vandalism of visitors

who, with an ax, would gather specimens, or, with a sharp instrument, would inscribe on priceless formations the names of most unimportant persons. "The geysers," he said, "in the slow process of centuries, have built up miracles of art, of an enduring though brittle nature, that can be ruined in five minutes."

Unfortunately, there are still visitors of that kind. Stringent rules must be made because of their presence.

All visitors turn their steps as soon as possible to Old Faithful, the geyser that has been sending its graceful column of boiling water high into the air every hour or so for no one knows how long. The first visitor to the Park told of the regularity of the flow, and today the movement is practically the same. The period has varied —still varies—a little; clocks can hardly be set by it, but the activities of those who visit the Upper Geyser Basin are regulated by the flow. "Next exhibit of Old Faithfut at 2.12 p. m." read the clocks with movable hands in various near-by places of resort. And when the time approaches an expectant audience gatherers, seated on tree trunks at a safe distance, or standing where they may run easily if the wind drives the spray in an unexpected direction. Even those who should be on most familiar terms with His Regularity sometimes are off their guard. One visitor will not soon forget the hasty flight of a Park Ranger, who was standing at the formation from which the water was to spout—he thought in ten minutes. But it came so suddenly and so much ahead of time that he realized he must run for his life. Even then he was drenched as the water fell back, to flow into Firehole River, the stream whose springs of warm water in the bed were explained by Bridger when he said that the river flowing rapidly over a solid rock bottom, creates heat and warms the water at the bottom.

Not long ago Ranger Charles Phillips told with humor of an adventure of a different sort at another geyser:

"While awaiting an eruption of the Grand Geyser I was stretched prone in the warm saucer-like crater of the Triplets to avoid the sharp January wind, and improved the period of waiting by writing up the day's notes. Presently I became aware of a black shadow passing over and looked up to see a raven slowly sailing by not fifty feet above me.

"He passed and repassed several times and, evidently concluding that any creature in that attitude must be in the very last stages of decline, alighted on a nearby stub to await the inevitable end. A sudden spurt of the geyser brought me quickly to my feet, and the bird of evil flapped away with a disgusted croak."

Unfortunately there are people who think they have seen all that is necessary of the geysers when they have watched Old Faithful spout once; they go on to conquer other sights. But even they are better than the man who stopped his automobile long enough to ask, "When does she perform? Not for five minutes? Well, I can't wait. I've got to be going to the Lake."

That ride from Old Faithful to Yellowstone Lake is worth taking, but the wise visitor first gives the geysers full chance to show their prowess. When he has done this, he is ready for the view from Shoshone Point—the pine-clad mountains, distant Shoshone Lake, and the Tetons, seventy-five miles south. Then he can cross the Continental Divide twice, and can see Two Ocean Lake, from which water flows into the Big Horn River and so to the Atlantic; and into the Snake, and so into the Pacific. Nineteen miles of such scenery lead to Yellowstone Lake; then come seventeen miles more to the point by the lake where the lodge is situated.

"What part of the Park do you think could be spared?"

a Ranger asked of a company to whom he was speaking. Of course his hearers were up in arms at once. Then he explained that various interests try year after year to gain control of bits of the park, as they seek special privileges, or they try to show that certain square miles are not essential to the integrity of the whole. Thus very recently Congress was asked to give permission for a road from Cooke City, Montana, outside of the Park down the valley of the Lamar River, through the northeastern portion of the Park, to Gardiner, Montana. The reason advanced is the natural desire for a short cut and for easier grades. This project was opposed because "no road should be built in any National Park to serve any industrial purpose; because the road would bisect one of the noblest of Yellowstone wildernesses which is sufficiently reached by trails; because it would cut through a choice haunt of buffalo and other wild life within the Park which under no circumstances should be disturbed."

Another proposition was to cut out from the Park the twelve square miles enclosing the Bechler River Basin in the southwestern corner. This territory was desired for an irrigation project. "But both the near and distant mountains depend for much of their fascination on the meadow which forms the complete and perfect foreground of the whole picture," urged the Park authorities, who are ever alert to the interests of the people. Why should Congress permit a private reservoir to flood a fine canyon close to bubbling hot springs, and in the neighborhood of waterfalls and cascades?

But these watchful guardians of the Park's integrity are seeking to add to, rather than to take from, the Park's area. Instead of keeping to the rectangle which was set apart arbitrarily before the wilderness east, west and south of the canyon and geyser basin had been explored, they are trying to add, to the northwest corner

a petrified forest and other fossil-bearing lands; to the northeast corner the headquarters of rugged Pebble Creek; to the east the crest of the Absaroka Mountains, which now is within the Park for a few miles just north of the Cody Road; and to the southeast, the entire headwaters of the Yellowstone River, which contains several glaciers and a beautiful resort of wild animals. And on February 26, 1929, there was set apart, on the south, an additional area, including the best of the Teton Mountain scenery, Jackson Lake, and the Jackson Hole Country. "Grand Teton National Park" is the name of the new area. It is 35 miles long, and from four to five miles wide, while its area is about 150 square miles.

This marvelous country, lake, and mountain, and meadow—for the Jackson Hole is a great plateau, 6500 feet high, surrounded by mountains, except at the north, where it rises gradually into the high lands of Yellowstone Park—contains some of the most wonderful scenery in the Rocky Mountains. Mount Moran, which rises from the shore of Jackson Lake, is 12,100 feet high, while the Grand Teton measures 13,747 feet, whereas the highest mountain in the Park at present, Mt. Washburn, has but 10,317 feet.

The story is told of a Forester and his Captain who found a dude visitor (in the Rocky Mountains a "dude" is a vacation seeker from the regions beyond) who was ready to believe anything he was told. Pointing to the Grand Teton the Forester said: "My friend and I are two of the very few men who have ridden a horse to the top of that mountain!"

"You must be some climbers, and you must have ridden some horses!" was the admiring response of the dude.

More like the truth was the message of the early explorer who likened the Grand Teton to the Matterhorn. "Its very appearance," said one of them, "unlike most of

our own mountains, seems to forbid all attempts to reach it, and for most of the distance the ascent can only be accomplished by climbing with both feet and hands . . . At one or two points, when nearing the summit, we would have been obliged to have abandoned the task, but for the aid we received by casting the rope over prominent projections and pulling ourselves over them to places where we could obtain a secure foothold."

But this early explorer did not reach the summit. In fact the first successful attempt was made in 1898, when William Owen, with three companions, including Frank Spalding, after seven years of trying, climbed to the top. "Every time he tried the ascent," wrote an admirer who told of his prowess, "he was halted within eight hundred or a thousand feet of the summit by sheer walls with no possible chance of foothold. Finally he discovered on the west side of the peak where the mountain drops for five thousand feet sheer into Teton Canyon a small horizontal niche leading across the face of the cliff. This niche was just large enough for a man to wriggle along on his stomach to a narrow ledge where he could stand upright and make his way to a 'chimney,' a crevasse leading further up the side of the peak." By means of this "cooning place," as he called it, because he had to crawl along on hands and knees, like a coon, he reached the topmost pinnacle

Twenty-five years passed before another attempt succeeded—and once more William Owen, a man of seventy, was the victor. Since then a number of successful climbs have been made, by means of the "cooning place" discovered by Owen and Spalding.

The view of the Tetons from Jackson Hole is something to be remembered always. "The way in which they rise in a tremendous sweep abruptly from the edge of the broad valley floor without any pretence of foot hills is

magnificent beyond description," says a modern conqueror of the mountain. His enthusiasm for the sight is akin to that of N. P. Langford, the traveler of 1872, for the last valley below the mountain:

"The Teton Basin lay spread before us like the land which Lot saw when he parted from Abraham. This basin is more than 800 miles in extent, is covered with permanent grasses, well watered by large streams fringed with an abundant growth of cottonwood."

An English traveler, after standing in rapture in the presence of lake, valley, and mountain, added his word:

"On looking at the scene of enchantment, I wondered if, in my wanderings over the world, I had ever seen anything that surpassed what I then looked at. The Swiss lakes, the Italian lakes, Killarney, lakes in North America, in South America, and in Africa, all passed in memory—many of them beautiful, but not one of them more so than the view of loveliness that now lay before me."

Here where Nature speaks so eloquently mere man learns to be silent. One night at a camp fire in the Park a Ranger told of a man he met during his winter experience of patrolling the border, 1500 miles on skis. "We were together for hours on a cold day in February," the story began. "But the man did not have a word to say. At length I succeeded in getting him to say something; I mentioned a new man who had come to be his companion in his cabin in the forest. 'How do you like him?' I asked. 'Oh, he'll be all right when he gets toned down.' 'Toned down? What do you mean?' was my next question. 'Oh, he talks too much. One day he asked me what he would do if he got sick hundreds of miles from a doctor.'

"'Well, you can die, can't you?' I asked him. He doesn't talk so much now.'"

Chapter III

FROM YELLOWSTONE PARK TO GLACIER PARK

WHAT riches await the traveler who passes beyond Wyoming's National Park to the reservation on Montana's northern border! For he can go either by rail or by highway. Perhaps it is better to say that by all means he should go both by rail and by highway, for only so can he gain a clear idea of Western Montana's Rocky Mountain wonderland. The highway trip includes nearly five hundred miles of marvelous scenery, over a road that some day will be covered in two days by public bus. Perhaps this will come with the completion of the link in the Theodore Roosevelt Highway from Belton east to Glacier Park.

The first portion of the route by rail is on the western slope of the Rockies, at first through a region whose mountain scenery is mild, but later through the midst of notable splendor.

Part of the journey from Ogden to Idaho Falls is memorable because of the view eastward to the majestic Tetons, those glorious, precipitous peaks to the south of Yellowstone Park. Then come glimpses of the Snake River, famous among the pioneers who sought the North Pacific Coast, and notable today by reason of its deep canyon and splendid waterfalls which help it to descend, within one thousand miles, from an altitude of 4800 feet to 340 feet above sea level at its junction with the Columbia River. One of the spectacular descents is at Idaho

Falls, where the route from Yellowstone joins that from Salt Lake City, a route remarkable for many things, though in the minds of many who pass that way the scene of greatest interest is in the region of McCammon, where walls of columnar basalt stretch for miles along the right side of the road. These curious, symmetrical structures persist for a long distance, as much to the delight of those who study them from the train as to the dismay of the settlers. Yet this region, broken though it is by the basalt walls, is a paradise when compared with thirty-nine square miles a short distance farther west. For these include the desolate lava country which has been set apart as the Craters of the Moon National Monument. There, after a ride of twelve miles from the nearest railway station, Arco, or half a mile from the Idaho Central Highway, it is possible to view the havoc wrought by eruptions of lava through earth pressure, which ceased, it is thought, only a few hundred years ago, after a thousand years of activity. Cinder cones, craters, tunnels and caves abound. But some think that the most striking feature is the natural ice well, where a pile of snow that never melts reaches to within thirty feet of the mouth of an extinct crater.

Moving away from basalt and lava alike, the railway ascends slowly as it seeks the crest of the mountains, then drops once more, only to begin a second climb which continues to Butte.

"What a remarkable location you have!" one traveler said to a resident of Butte, as he rode on the laboring railway that zigzags above the town on its northeastern journey. "You must enjoy life here on the slope of the Rockies, so near the crest of the Divide!"

"Yes, of course," was the reply, as the man dismissed swiftly the reference to natural beauty. "But you should see our 2700 miles of underground streets in the mines,

go down a shaft 3600 feet deep, talk with one of our 15,000 men who help to make this the greatest copper camp in the world. Do you realize that here in Butte we mine more than one sixth of the world's copper? Are you aware that this is the fourth mineral era for us—that gold and silver have given way to copper and zinc, that gold and silver are now by-products of recovery of zinc and copper? Did you know that——"

But the boasting of the man who had so much greater appreciation of the achievements of things that can be measured by figures than of the glories of nature, was interrupted by the exclamation of a woman: "See the black rocks from the mines!"

Then the man of statistics turned his attention to her: "You can charge up many things to the mines, but not those rocks. Mining operations may have blackened them, but they have not produced them."

There may not be much but barrenness in and about Butte, yet the great mining center is near the heart of one of the great forest belts of Montana—the Deerlodge National Forest, which produces each year five million feet of commercial timber, cut in such a way as to maintain the protection of the water supply, not only of Butte, but of Anaconda and Deer Lodge as well.

The mention of merchantable timber gave a new opportunity to the man who was boasting of Butte's mineral activities. "Did you know," he asked, "that this timber is sent into Butte to renew and extend the props that support the 2700 miles of underground streets of which I was telling you?"

Even larger are the timber sales from Madison Forest, to the southeast of Butte, another of the princely reservations made to care for the evergreen forests where Lodge-pole pine, Douglas fir and Engelman spruce grow so abundantly. This is the forest of the Vigilante Trail,

with its tradition of outlaws and the men who were their Nemesis in days when law was administered only by organized groups of citizens. And it is the forest of the rugged Tobacco Root Mountain and the Madison Mountains, ranges which reveal Rocky Mountain grandeur in manner most surprising to those who are willing to leave the railroad and the highway and take to the trails that lead to the tangled waterways among which the Jefferson, Madison, Gallatin Rivers are born and flow majestically northward to their union at Three Forks where they form the Missouri. However, this beginning of the largest tributary of the Mississippi River is outside of the boundaries of Madison Forest; the upper boundary of the reservation is a few miles south of the trail taken by Lewis and Clark in their historic exploration tour to the Pacific in 1805, along the Jefferson River.

When the famous explorers visited the fertile valley, and were delighted with the beauty of Three Forks, they found themselves on an old battleground of the Indians; periodically the Blackfeet, the Nez Perces, the Bannocks, the Crows and the Shoshones were accustomed to exchange compliments there. Sacajawea, the helpful Indian woman who accompanied Lewis and Clark, was much moved as she reached the junction of the rivers, for she recognized the country where the Minnetarees had torn her from her people.

For fifty miles along the Jefferson River the trail may be followed from another national reservation, an hour's railway ride and a rather rough highway trip east of Three Forks. This is the Lewis and Clark Cavern National Monument, named for the explorers, though it was not discovered until 1895. In the limestone of Cave Mountain, more than a thousand feet above the river, an entrance leads to a descent of 175 feet, then to passages and chambers where beautiful formations are frequent.

Some day soon it is hoped to make the cave easier to approach and safer to explore; then those who come to it by the Yellowstone Trail from Cardwell will have a new point of interest on their route.

From the mouth of the cave in all directions the eye drinks in eagerly the vivid green that is missed for a time when a pause is made in Butte. But as soon as the Divide to the east of Butte is left behind the rich vegetation appears once more. Then comes a ride of rare charm, whether this is taken by the railroad or by the highway, on the slopes, in mountain meadows, by the brawling Boulder River as it hastens to the valley. In the midst of this striking valley, in the heart of the mountains, are Boulder Hot Springs. How pleasantly the green-clad mountain slopes rise above the valley! Tier on tier of velvet invite the hiker and the patrons of the lowly mule. Suddenly the prospect is blotted out by a tunnel a mile long, but almost immediately after the outlet is reached another rare prospect pays amply for the deprivation suffered for a few moments.

When Lewis and Clark passed along this route, they camped in Prickly Pear Valley, and this was the name they left behind them. They little suspected that they were passing over rich gold deposits, or they might have been a little readier to bestow pleasing names! The gold remained hidden for nearly sixty years more; in 1864 prospectors discovered the yellow metal close to the Prickly Pear Valley, in Last Chance Gulch. There a mining camp began to sprawl along the gulch, and spread out between Mount Helena and Mount Ascension. Those who follow busy Main Street in modern Helena like to think they are tracing the historic gulch of gold.

Now we are on the eastern slope of the Rockies, in the midst of Helena National Forest, as we have been since leaving Boulder Hot Springs. And in all directions from

Helena, through the forest reservation, are side trips that provide rare delight for those who find it possible to linger for a few days at this midway point between Yellowstone and Glacier Parks. Canyons, lakes, abandoned mines, relics of towns of other days, are everywhere. But perhaps choicest of all the trips is that to the Gates of the Mountains, where the Missouri River flows between massive limestone walls which terminate in pinnacles far above the stream.

In its passage through the last of the main range of the Rocky Mountains, the river offers a boat ride of more than twenty miles long, through formations so unlike those of other canyons that the traveler finds himself at a loss for comparison—especially at the place where it seems to those who travel by water that mighty gates are opening majestically to prevent his passage.

From Helena many who go on to Glacier Park by automobile choose to take the road that leads west to Missoula, then north, that they may enjoy some of the finest country in the whole Rocky Mountain region. After a few miles they follow, in general, the route taken by Lieutenant Mullan in 1869, when he cut his pioneer road through Mullan Pass and along the Little Blackfoot, then along Clark's Fork of the Columbia. There is wild grandeur at every turn. And the climax is reached with Hell Gate Canyon, close to Missoula. Yesterday the Blackfeet lay there in ambush for their enemies, and today surprises await the wayfarer along the way. And by no means least of the surprises comes when he sees Missoula, in its stately setting, between the foothills of the Mission and Rocky ranges.

South of Missoula the Bitterroot Valley reaches down toward the Continental Divide and Yellowstone Park. Passing through this valley, between the steep, saw-toothed Bitterroots and the rounded summits of the Sap-

phire Range, the Park to Park Highway reveals one of the finest agricultural regions in Montana. On either side the Bitterroot National Forest protects the sources of the tributaries of the river sought long ago—and still —by the Indians when they would gather for food the plant with a pink starlike blossom and a bitter root. Naturally they call the valley "the place of the bitter root." Lewis and Clark gave the river another name, and De Smet called it St. Mary's; but fortunately the Indian name had too much vitality to yield.

Missoula is another city hard to leave behind, both by reason of its own charm, and because of the scenic routes that radiate from it. One of these takes the traveler northwest, through the Lolo Forest, toward Coeur d'Alene and Spokane. Another leads to the east, then north, into the Flathead National Forest where the Turquoise Basin nestles near the summit of the Mission Range, with lakes and small plains and even grizzly bears to repay those who take the trail when the road has done its best.

But those who seek Glacier Park turn northward to Ravalli, the town on the Jokko River, through enticing country, then keep on toward Flathead Lake—that is, if they can resist the temptation to turn left on the road to the Clark's Fork Valley through the Cabinet National Forest and to Thompson Falls, with its power plant and dam. The busy town tells of David Thompson, fur trader, who in 1809 built the first house in Montana! The forest, too, of which the town is headquarters, has a story attached to its name. When the French Canadians discovered many box-like recesses in the rock walls of Clark's Fork, they gave to them the French name for room—cabinet.

The unexplored wealth of scenery in these mountain fastnesses can be appreciated only by those who take the journey. "Where does that trail lead?" they are asking

continually. And the reply is apt to be: "Off into the mountains; there you can find waterfalls without names, lakes where the fish are never troubled by the sportsman, and peaks that look down on valleys whose streams lead through meadows seldom trodden by the foot of man."

But the main road has thrills a-plenty for those who cannot turn aside. The fertile valley of the Flathead River is far beneath the snow-capped Mission Mountains. Fortunate above many of their people are the Flathead Indians who have been given a reservation amid these charming surroundings! Buffalo, too, have a sanctuary in the valley, for near at hand is the Buffalo Bison Reserve, where five hundred of the beasts roam their generous pastures.

Many canyons lead from the road into the mountains, and waterfalls leap from the mountainside into these passages to the valley. Mission Canyon, the Canyon of a Thousand Cataracts, is notable among these. Soon comes Flathead Lake, the largest body of fresh water west of the Great Lakes, whose 360 square miles are surrounded by forests and mountains. Again that fetching combination of green and white, ever in the eye of those who take the highway on either side of the lake to Kalispell, or who ride the serene waters from Polson to that delectable little city, seated near the head of the lake.

Now the traveler is within easy reach of Glacier Park. That is, the road goes to Belton, the western entrance to the Park, and is under construction farther east. Eventually it will reach the new entrance at Glacier Park Station, but for a time yet the railway is the only connection between the points. Many of those who travel by automobile ship their machines and so have them ready for the routes available to the north of Glacier Park Station.

But those who seek Glacier Park Station direct from the south must take another route from Helena. They

will miss much mountain scenery, but the country through which they will pass is also full of delight. What could be more enticing than following the young Missouri River, so recently from its formation at Three Forks! The clear, blue waters give no hint of the turbid, muddy stream it is to become even before it reaches the mouth of the Sun River at Great Falls, where the stream takes plunges sufficient to provide so many thousands of horse power that the needs of both Butte and Anaconda are provided for, as well as those of some other towns.

Five hours suffice for the remainder of the highway journey to Glacier Park. The road approaches gradually the mountains of the Continental Divide, which here is so close to the open country that one visitor has spoken of "naked and sudden mountains leaping up from the plains."

But before the road turns westward to the entrance of the great playground, it crosses the reservation of the Blackfeet Indians, the descendants of those who once roamed over the whole country from Hudson's Bay to the Rocky Mountains and still cling affectionately to the fastnesses of Glacier Park. And a little farther on, just before coming to the entrance of the Park, where the traveler crosses the north fork of Two Medicine River in its curious V shaped bed, he crosses also the old Rocky Mountain Trail, or the Travois Trail, which runs along the eastern slope of the Rocky Mountains for a long distance. This trail was used by the Indians during many centuries. This was the great highway from the south to the north, and was used, it is said, by savages even from South America.

Railroad passengers, too, traverse the reservation of the Blackfeet, and so are prepared for the Indian flavor which belongs to Glacier as to no other park in the land. This was their chosen playground, especially by day; at

night they preferred to be on the plains where they were not affrighted by strange sounds that they thought were made by evil spirits that sought their undoing.

Passage from the mountains they feared was easy for the Blackfeet, for the transition from mountain to plain is rapid. This fact is remarked at once by the traveler who approaches Glacier boundaries. The expected fringe of foothills is almost entirely lacking; within a few miles he goes from the plain to the heights of the Front Range with all their accompaniments of glaciers, lakes and waterfalls.

In his eagerness to seek the mountain fastnesses at once, the average visitor pays little heed to the Indians who gather on the station platform or the hotel piazza, or seek the shelter of the tepees on the grounds of Glacier Park Hotel. "A good advertising dodge!" is apt to be the thought. "See how fantastically they are dressed!" But this is a mistake. As has been said, the Blackfoot belongs in Glacier Park. Furthermore, the regimentals he wears are not those of a holiday, but are his accustomed habiliments, according to Walter McClintock, adopted Blackfoot, who has spent years in their tepees. In his "Old Indian Trails," he tells of seeing a young girl riding on a rude raft of poles in the river. "She wore white-shell earrings, a long necklace of blue service berries, and leggings and moccasins decorated with colored beads. Her deerskin dress was bound at the waist with a girdle of colored beads; Indian fashion, it had no sleeves, but was cut into a fringed cape across the shoulder, and hung freely over her bare arms."

It is quite fitting, too, that there should be tepees on the spacious lawn between the station and the "Big Tree Tepee," as the Blackfoot characterize the Glacier Park Hotel. These tepees look as if they were on dress parade, by reason of the decorations on the canvas. Yet the au-

thor of Old Indian Trails, from his wide experience among the Blackfeet braves, says that in one camp—a circle camp, close to the Glacier Park territory—of the three hundred and fifty lodges, thirty were Painted Tepees with symbolic decorations, the property of the head men of different bands. The owners guarded them with jealous care. The author, admiring the paintings on an Otter Tepee, asked Medicine Weasel to paint a similar tepee for him; the fright he caused to the man made him aware that the Otter was the prized possession of its owner, and that no one dared copy this. The character of religious ceremonials was determined by the nature of the pictures, and also by the sacred bundles, such as the Beaver Bundle, and the Buffalo Bundle, possessed by the chiefs, which were reputed to have magical qualities.

The building of the tepee is a ceremonial. With wonderful care the Indians cut the slight and slender trees of lodge-pole pine for tepee poles. After peeling off the bark, these are stood in the sun to dry. Then when the covering of skins—or canvas, in later days—is placed about the poles, a lining is arranged for shelter, protection from wind and rain, and to direct the fire. The smoke hole in the top can be closed in time of storm, and a fireplace of stones built beneath it takes care of the heat in favorable weather.

More tepees are hidden away back of the hotel, in the thick undergrowth of a mountain stream. One of the most interesting things incident to a visit there is the sight of the children, chasing each other, playing boisterously, just like children the world over.

Visitors today find more than tepees that are the same as in the years when the Indians were sole lords of this enchanted region. If they wish to skirt the southern edge of Glacier Park they must—unless they take the railroad—be content with just such trails as the Indians had.

For, as already explained, there is no highway from Glacier Park to Belton. Before the railroad could be built it was necessary to spend weary years in search for a pass over the Continental Divide. The Blackfeet knew of such a pass, but superstitious fears made them unwilling to guide a party there. So the pass eluded those who sought it until John F. Stephens went on the trail. The story of his search is an epic of railroad building. In 1889, in the dead of winter, deserted by his guides, he stumbled on Marias Pass, where today the Great Northern crosses the mountains. The night when he made his discovery the thermometer registered forty degrees below zero down on the plains. On the mountain heights the cold was much more intense. He had a fire, but he did not dare to lie down to sleep; his only safeguard against freezing was to pace up and down before the fire all through the night. "It took a pretty strong man to do these things," Mr. Stevens said, later; "but I was pretty strong in those days." That was his modest comment on the achievement which is commemorated by a bronze statue close to the railroad in the pass.

Thus ended a search that had lasted for nearly half a century. In 1853 surveyors for the Union Pacific sought the pass. One of them succeeded in reaching Belton from the west. Then he had to cross the mountains, but the snow-covered shale sent him back. The very next year a surveyor approached the pass from the east, but he, too, failed. In 1858 W. T. Hamilton might have succeeded, but the treachery of the Indians on the Marias River forced him to flee for his life. Rafael Pompelly came close to success in 1882. Then, in 1889, came the conqueror.

A little beyond Marias Pass is Belton, the western gateway to Glacier Park. Unless the visitor there is ready for trail trips, he cannot go far, for on this side of

the reservation there is comparatively little highway. But what country this little opens up! Those ten miles of road up Lake McDonald to Lewis' Hotel have thrills enough for a day's journey. Then the lake—which Duncan McDonald, a half breed, says was named for him because of his visit there in 1878—and the surrounding mountains. It is important that the road be taken. But better still it is to take, in addition, the steamer ride on the lake.

The National Park Service is building a wonder road from the head of Lake McDonald to Logan Pass. Before long it will be possible to travel by automobile past lakes and valleys, meadows and peaks, to the wilderness of mountains between Lewis Pass and the head of St. Mary Lake, then along the lake shore by a road already completed to a junction with the highways on the east side of the Park. The new highway is to be fifty miles long. This will add thirty per cent to the mileage of available public highways in the park.

In the meantime trails galore give access to lake and canyon, waterfall and glacier. The mere cataloguing of the names of the destination of these trails gets the traveler a-tingle. Trout Lake, Paradise Canyon, Sperry Glacier, Avalanche Basin, Gunsight Mountain, the Garden Wall, Rainbow Lodge, Skyland Camp! It is almost impossible to keep the feet from turning to the trails that lead to these wonders of the Park. Highways are good and necessary, but trails are better for those who would see the mountains in their lonely glory.

So many of those who visit Glacier seem to have the idea that they must be prepared to face great difficulties; they come from the train in hiking costume and mountain equipment marvelous to behold. The descent of the daily arrivals on the evening train is a sight to be remembered. But extreme mountain dress is not necessary, for

the hardest of the trails are comparatively easy, and may be traveled with comfort by those who make ordinary common-sense provision. This fact is learned soon by the average visitor; before many days he is apt to shed some of the garments he thought would be most necessary to the conquest of the inner treasures of the park.

If the garb of some of these visitors startles the dignified representatives of the Blackfoot tribe who welcome arriving and departing guests, in a regal manner worthy of members of a tribe that once owned the entire region, they give no sign; they do their best to make everybody feel at home. Their greetings may be spoken in surprising English, but somehow their guttural speech is preferred by the traveler. Most of all, however, people are partial to the moments when the Indians express themselves by some tribal dance on the lawn or on the piazza. As they move rhythmically about it is so easy to be transported back to the days of which McClintock[1] wrote as he told of a night camp near the mountains:

"In an open space near the center of the camp was a throng of Indians, taking part in the ceremony of the Sun Dance. The surrounding meadows were bright with blue lupines, shooting stars, cannas and yellow sunflowers. Smoke from the evening fire rose from the tepees. Many horses were feeding contentedly on the hills. As we stood looking down at the great camp, a light breeze carried distinctly the shouts of men and women, crying of children, barking of many dogs, neighing of horses, and the rhythmic beating of Indian drums in dances and ceremonial gatherings.

"We slept on the open prairie with only the sky for a roof. Late in the night I was wakened by Indian horsemen riding through the camp, singing strange melodies,

[1] In Old Indian Trails, copyright 1923 by Houghton, Mifflin Company.

giving at intervals shrill war whoops, jangling bells keeping time with the slow and measured trot of their horses. Their songs had a lilt and wildness, and were sung with a vigor and enthusiasm that made me long to record them. Excitement was in the air. Flaring inside fires lighted up the lodge, casting weird shadows of the inmates on the outside coverings. I heard the booming of drums, shrill cries and shouts of dancers, laughter and cheer of the crowds. From the center of the camp came a solemn chanting of many voices, accompanied by heavy beating of rattles on the ground. At intervals the low monotone of men singing in unison united with the shrill voices of women. Then the mysterious chanting died away and I fell asleep."

In times like those described, George Bird Grinnell paid his first visit to this region of rugged mountains, approaching it by Helena, then by stage and pack-horse. They tell in the Park of his last visit five years ago. When he talked of going into the mountain fastnesses where he had hunted more than forty years before, he was told that he would have to follow a guide. "I'll be hanged if I'll let a man lead me around where I know the way!" he said, as he started off alone.

The development of the Park has come within twenty years. In fact, the Park was not created until 1910. As late as 1908, Dr. Morton J. Elrod, Montana State University's Professor of Geology, says he found nothing here but the lakes, the streams, and the mountains—mountains which "in ruggedness and sheer grandeur probably surpass the Alps, though geologically it is naturally different."

The familiar talks given by Dr. Elrod at Glacier Park Hotel have come to be recognized as one of the best preparations either for a trip over the well-built roads or for a more adventurous hike to hidden lakes and gla-

ciers. He has the faculty of making his beloved mountains as picturesque as the Indians who gave names to so many of the best known features of the Park.

The faculty of the Indians in picking names was illustrated by a chief who told McClintock of a mountain with a great landslide on its eastern slope. "We call it 'Lodge-Lining Mountain,' because it looks like the lining of a lodge. The river that rises there is named after Old Man, and in the mountains near its source is Old Man's sliding place and the place where he gamboled."

But Dr. Elrod is at his best when he speaks of the geology of his beloved mountains, telling how the algonkian, the oldest strata of rock, are exposed in Glacier. So recently as 80,000,000 years ago they were sediment in an ocean bed. Some of these rocks, we are told, appear in the Grand Canyon of the Colorado, "but nowhere in the world are they displayed in such area, profusion, variety and magnificence of coloring, as in Glacier National Park." Then we are informed that the bottom of the sea was raised, and the vividly colored rocks were lifted high. They cracked, and one edge was thrust violently over the other; then they sagged in the middle. "That is why the colorful glacier country appears to be so upset, twisted, inextricably mixed."

A vivid picture of the days that somehow do not seem so long ago tells of Flattop Mountain, 6500 feet high, which forms the Continental Divide for twenty miles. Yet "it is in effect a basin, as it is rimmed around by a wall of mountain peaks. If the observer on one of these peaks could see in imagination the present valleys filled to a depth of 1000 to 2000 feet, he would then obtain a realistic picture of this basin as it must have been when it was formed long ago, before the present valleys were excavated. It was then as now a beautiful park with rolling surface that stretched across up to and blended

with the slopes of the surroundings. Some of the old gently rolling surface is still preserved in Flattop Mountain, which, with its cover of open forest, forms a beautiful natural park."

Another helpful picture for those about to penetrate Glacier Park's mysteries has been given by Robert Sterling Yard, who says that "as a National Park Glacier is comparatively new, but geologically it is a very old region." Then he continues:

"One or a score of million years from now the Canadian Rockies may come to resemble Glacier as it looks to-day, for both are parts of one vast identical earth surface movement. But Glacier, enormously the older, geologically, cuts downward through the strata into the earlier, more highly colored, and more readily carvable rock strata than the Canadian Rockies. It is, let us put it, the more nearly finished product of an identical cause, possesses a wealth of color, carving and decoration peculiar to itself, and in addition it has warmth, an intimate friendliness and the exuberance of life."

It is a mistake to think of this friendly country as simply a section of the Rocky Mountains, cut off arbitrarily and set apart by edict of Government. It has been set apart because it is an amazing, twisted, confused labyrinth of colorful rocks that rise suddenly above the plain. These mountains are not a single range; two ranges, the Livingston and the Lewis, play hide and seek with each other and toss the Continental Divide about in most perplexing fashion, until its passage through the Park is more like the path of a child playing hopscotch than like a respectable partition wall. Abruptly these mountains rise above the plain to the east and gradually they drop to more normal elevation in the west. But for from ten to twenty miles or more they stand majestically, a mighty barrier, a tangle of rounded peaks, of

Gates of the Mountains

In a Blackfoot Camp, Glacier National Park

McDermott Lake, Glacier National Park

Photos copyrighted by Hileman.

Waterton Lakes, Waterton Lakes Park

jagged pinnacles, of gable-topped slopes, of attenuated walls that end against the sky like the weird line drawn by a child who cannot write, yet insists on sending a letter to her mother, or like those crazily jumping lines which portray high and low levels of stocks in a panic market.

The roads in the Park—they are much more limited in extent than they will be in a few years, but what matchless opportunities they afford for studying the wonders the Indians guarded for their successors!—lead along the edge, to the east of the Continental Divide. They take periodical excursions into the heart of the mountains, up the valleys that were moulded by the glaciers when they forced their majestic way down from the lofty mountains. There are seven of these valleys. Each has its partisans who declare it most wonderful of all. The only way to settle the question is to see all the valleys, and become a partisan of one of them!

The valley-making glaciers had their beginning when, according to a United States Geologist, moisture-laden winds struck the mountain masses elevated from the sea. These winds, forced up into a cooler atmosphere, deposited snow upon the slopes. Often there was more snow than could be melted. Granular ice resulted, and glaciers were formed. "This erosive action changed the form and contour of the mountains. The main glacier, moving down the mountain, a stream of ice, received tributaries from the ice formed in side slopes. At the head of nearly every such tributary an amphitheater or cirque was cut out of the solid rock by the ice. These cirques were, usually, semicircular, had flat bottoms, and were bounded by nearly vertical walls. During the ages the cirques became larger. Often glaciers cut into the mountain mass from opposite sides, and the result is a saw-tooth ridge, such as is seen so often in the Park."

When the glaciers passed from the mountains into the

V-shaped valleys of the stream, they gouged them out to a broad U-shape. Then the valleys were deepened, and lakes were formed in them.

Now we are ready to listen to W. C. Alden, Government Geologist:

"One can easily picture to himself, as he looks down the valleys, the great river of ice which in years past cascaded from the cliffs below the upper cirque, increased as tributaries from the many branch valleys united in the great trunk places. In imagination he can see the great glaciers, many hundreds of feet in depth, filling the great mountain valleys from side to side, and deploying them upon the bordering plain. We seem to see these mighty engines plucking away the rock ribs of the mountain, smoothing, grinding, and polishing the irregularities, and sweeping away the debris to be spread on the plain below."

"It is a mistake to think of all this as past history," we are told. "These processes are still going on." We may not be able to trace the results within a short period of years, but in many, many lifetimes changes will take place.

Back in the cirques on the mountain sides remnants of the glaciers may be seen. In the Park there are perhaps ninety of these glaciers. Blackfoot Glacier is the largest; this has three square miles of ice. Many, of course, cover but a few acres. Yet they are true glaciers.

Chapter IV

WHERE THE INTERNATIONAL BOUNDARY CROSSES THE DIVIDE

The upland road from Glacier Park Hotel that gives access to the valleys seems to be on a level with the snow-clad peaks to the west. What color there is in some of these mountains! The contrast of the characteristic band of red rock with the snow adds to the picture. Now the Continental Divide is near; soon it recedes, and mountain meadows find room. Again the high mountains are close. Soon the road crosses Hudson Bay Divide, where the waters that go to the Atlantic Ocean separate from those which go to the region of icebergs. Then, after rolling through the virgin forest, the way leads to marvelous St. Mary Lake, cradled in the mountains. There is a road by Upper St. Mary Lake, back to Going-to-the-Sun Chalets, but better even than this is the steamboat, for this affords visions of glory of which the traveler on the shore has mere hints. One picture succeeds another with bewildering rapidity. The reflection of the clouds on the banded mountain slopes. The light green of trees on the shore, the deeper green on the mountain side, the snow mingling with the green, and the clouds over all. The reflection in the placid lake; "so keen, so living, so sharp." Where can these be surpassed? Not even Mirror Lake in Yosemite can equal what is offered here. The glint of the sun on the mountain sides, which makes them sparkle like myriads of diamonds. Over yonder pyramids

and castles. There a leaning pyramid that looks as if it were toppling toward the lake. Over to the left is Red Eagle Mountain, on whose side the waters from the melting snows come tumbling down through a gorge in the green forest cove. Yonder are the mountains of the Triple Divide, from which waters pass to the Arctic by way of Norris Creek and St. Mary Lake; to the Missouri and the Gulf by way of Cut Bank Creek; and by Nyack Creek and Flathead River to Clark's Fork of the Columbia and the Pacific.

The ride up the lake may be fine. But what shall be said of the end of the journey, the lofty rocks on which are the buildings of Going-to-the-Sun Chalets? Their perch on the cliff commands the lake on one side and the mountains on the other three sides. Mountaineers who have been in all parts of the world agree that the prospect from this point becomes a fixture in a memory that has room for only a few such outstanding scenes. How these mountains command the lake, rising one back of another, then marshalling their peaks as the eye sweeps around two-thirds of the horizon! Red Eagle Mountain, Little Chief, Citadel, Gunsight Pass, Fusilade Mountain, Reynolds, Going-to-the-Sun, Goat Mountain. And three glaciers! How varied these mountains are! Here is a telling reply to the man who says that mountains are monotonous; he prefers the plains!

"Does it snow much in the mountains?" a visitor to Going-to-the-Sun Chalets asked one who knew the Park.

"Does it snow!" was the reply. "Several years ago a park ranger showed me a snapshot of his wife, taken on a mid-January afternoon, resting her elbows upon the cross-bar of a telegraph pole."

The snows pile up on the level, but they pile up still more in the mountains—for instance, on Gunsight Pass, which may be reached by a spectacular trail trip from

Going-to-the-Sun Chalets on St. Mary Lake, first by easy grade, then up over the precipitous walls of great height and beauty of the Continental Divide. Beyond the Divide that gem of water, Lake Ellen Wilson. A side trip leads to the great Blackfoot Glacier.

That trail trip enables the visitor to the Park to appreciate the feat of Dorothy E. Pilley, the London mountain climber, in surmounting the rock face of Going-to-the-Sun Mountain, and to sympathize with her in statements made by her later in an article in the National Parks Bulletin which should be rescued from the oblivion of a transient publication.

After telling of the early neglect of the Alps by Europeans, she said:

"Something of this same neglect appears in the attitude of the American dweller in the plains toward his own magnificent mountains. He seems hardly yet to have realized the possibilities which lie hidden behind that jagged crest which overlooks so far and so nobly the swelling lands of Montana. And yet from Chicago the soaring summits of Glacier National Park, for example, are not more remote than those of the Alps from London. His traveling facilities at least are superior. He has no channel to cross, which, however, attractive it may be to the swimmer, is not always so alluring to the tourist. And when he gets there he finds a playground to his heart's desire, surpassing scenery, lakes, precipices, peaks, rushing streams, tree-studded upland parks, rivalling one another in beauty.

"There is indeed no end to the delights which await the mountain lover here. If he is in need of rest, he can sit on the hotel veranda and gaze his fill on vast rock walls which flame above the sombre green of the forests, with the vivid hues of sunset. The Lewis overthrust has tilted, contorted and exposed the rock strata so that nowhere

else can man look so readily on the oldest rocks in the world. This is the place in which to meditate upon the mystery of the ages.

"Or if the visitor is more vigorous, there are innumerable trails to be explored on horseback; the stupendous walls which surround Iceberg Lake with its never-failing floating islands of ice; the Devil's Elbow, an unforgettable incident on Swift Current Pass; Grinnell Glacier and the glories of shapely Gould linked to the Garden Wall; Triple Divide Peak, whence waters flow to the Arctic, Atlantic and Pacific; the flower-starred Cut Bank meadows; the peace-laden boughs that surround Two Medicine Lake; these are but a few of the visions that await him.

"If he is yet more hardy he will put on hiking boots, and, forsaking the horse trail, will take to the narrow upper winding switchbacks which lift him above the trees and grass lands to the world of rocks and the glories of the upper summits. From Stark Peak, Rising Wolf, or Going-to-the-Sun Mountain he will see the earth as a map beneath him, its streams shining silver-bright, its forest-fringed lakes glowing as jade or agate, and beyond the ramparts of the purple mountains a glimpse of the plains whence he has come. Or hardiest of all, he may join the select company of the cragsmen, who can go where even the goat would fail to follow, to whom no precipice which gives firm hold for finger tips is too appalling, who find their keenest joy in treading where no man yet has trod. There are still plenty of unscaled summits to lure the explorer to Glacier National Park.

"One is often asked how these mountains compare with the Alps. The reply is that both are incomparable. Every mountain chain has its own peculiar charm, only to be fully appreciated by those who know it best, and who by many visits have won their way into its innermost secrets.

"But the plainsman, it will be said, is naturally insensible to the charms of the mountains. He has acquired an affection for the unbroken horizon of the prairies, its spaciousness and that thing which is known as 'the fascination of the prairies.' The reply is that in Europe even the Dutchman, that plainsman of plainsmen, has at last fallen a prey to the Alps. Very many of the inhabitants of that vast plain, which extends from Cambridge, England, to the Ural Mountains, have become devotees of the sport, as well as amateurs of the beauty of the mountains.

"The American Rockies hold out an equal invitation. The dweller on the Pacific slope has already responded and a host of mountaineering societies is already in existence. It will be interesting to see how long it will be before the Middle West appreciates the wonderland which lies almost at its very door."

There is now no excuse for the old attitude of indifference, for the National Parks administration is doing everything possible to bring such areas as Glacier to the attention of the people, and to take away the fears which keep them from going far from the roads and the hotels. In 1920 a Nature Guide Service was begun, and this has been developed until now, at every turn, in every one of the parks, the official guide stands ready to lead the visitor into the heart of his domains or to give him the information he seeks on any subject.

How these guides enjoy their work! As Loye Miller, of the University of California, said:

"His mission is a pleasant one—that of making folks happy—and he sometimes does it in an algebraic fashion by subtracting from their unhappiness, taking away some of their fears of the out of doors, the things that make them hesitate to go into the woods or sleep under the stars. Afraid of 'mountain lions,' afraid of bats, afraid

of lizards. A proper understanding of the out of doors, and these fears drop away, the park visitor is released from certain fears and the way is opened for positive enjoyment, physical enjoyment, aesthetic enjoyment for intellectual stimulus, and for expansion of horizon. Certainly all this should work toward that 'enlargement of the spirit' which is the function both of art and of science."

One of the things done through the educational service in Glacier Park is the replenishing of the supply of wild flowers on display in the hotels. In a territory where there are 950 varieties of vegetation, including the trees, the park botanist must keep on his toes. But his success may be judged by those who stand in rapture before the riot of color in the hotel displays. These displays vary from day to day. But their attractiveness may be judged from a mere list of some of the flowers that were present on one summer day: Indian paint-brush, of course; pink pyrola; false forget-me-not; Nancy-over-the-ground; Glacier lily; western anemone; shooting star; heal-all; the beautiful white or tufted bear grass; globe flower; wild heliotrope; fleabane; pink meadowsweet; harebell; umbrella plant; blue larkspur; purple beard tongue; yellow columbine; red twinberry; wild candytuft; sulphur plant; coral root; pearly everlasting; wood orchis; brown-eyed Susan; arrowhead ragwort; white bog orchis; aster; yarrow; wild hollyhock; white vetchling. And this is only the beginning of the story of a single day's display!

"I saw a woman taking three or four of your flowers," said a little girl to the naturalist who had labeled them with punctilious care. "I think she ought to be stopped."

"No, anybody is free to take from my collection all the flowers desired," was the naturalist's reply. "This is an easier way for them to get specimens than to step aside from the trails to gather what they see. We do

not wish them to gather flowers, and we have found that the best plan to discourage indiscriminate plucking that, in time, would destroy the rich vegetation of Glacier, is to put flowers in the way of just such gathering as you are reporting to me."

With many a backward glance the unsurpassed view of the mountains from Going-to-the-Sun Chalets is left behind for the ride onward to the Swiftcurrent Valley, where Boulder Creek and the Swiftcurrent come down to join St. Mary River. This is the stream that caused so much trouble between the United States and Canada some years ago because Canada wished to divert the water when the stream crossed the International boundary before it recrossed the line into the United States. Of course a satisfactory solution was found; since then the water has been divided.

The valley becomes more beautiful and more rugged until the head is reached, where Many Glacier Hotel is built on the very shore of Lake McDermott, one of the 250 lakes, large and small, within the Park. That hotel looks attractive, but many visitors prefer to spend their nights in the chalets perched on the lowest slope of Mount Altyn near the falls in McDermott Creek. These chalets were built before the construction of the hotel. The hotel may be more comfortable, but the chalets certainly afford a more tremendous prospect of the mountain glories beyond the hotel. A very slight climb up Mount Altyn from the chalets gives a most effective view over McDermott Lake, and on to Lake Josephine beyond.

The boat on the lake pentrates deep into the mountains, as branches of the water lead back among the precipices. But better far than the boat is the trail that leads to Lake Josephine, then to Grinnell Lake and Grinnell Glacier, or that other trail—now much easier than formerly—to Belly River, the beautiful stream with the

unbeautiful name in what is truly described as a gorgeous wilderness. By the way, Robert Sterling Yard wonders if the name does not come from a trapper's misunderstanding of what the French may have called La Belle Riviere, the River Beautiful. Only those can appreciate the name so interpreted who go to the Belly River Country which is described eloquently: "The region's southern wall carries the Continental Divide, from which hang complicated massings of limestone, cupping glaciers whose waters trickle into lakelets on the steps of huge descending stairways, or sink to the bottoms of titanic wells. The western wall carries the loftiest of Glacier's summits, Mount Cleveland, wearing a glacier jauntily like a tourist's cap. Its eastern wall seems perpendicular in places, part including the precipice of Iceberg Lake and part bulky Yellow Mountain. Between its valleys, an enormous limestone partition includes majestic Mount Merritt, one side minaretted like a medieval fort and the other hollow as a bowl, its gaping chasm hung with glaciers."

It is good to read of these trails in such a careful handbook as Elrod's Guide. But think of the trip itself! And this is but one of many trail trips available from Many Glacier.

Here on these trails that lead from McDermott Lake the time at the disposal of the visitor seems all too short, whether it be a day or a week. "I dread the coming of night," said one enthusiastic tourist. But it is a mistake to feel that, when the sunset comes, pleasure is over until another day. For at the day's close fresh joys begin. As the sun drops behind the peaks to the westward, the long shadows fall on the lake and on the mountain back of the hotel. Above the shadows the rocks stand out in greater relief than before: the red bands, the white of the snow, the lonely cirques, like gigantic quarries where

snow lies in the path of the constrictive ice of ages of long ago.

The air is so clear that darkness gathers slowly. Gradually, however, the stars appear. Among them the Pleiades stand out more conspicuously than ever by reason of the tale of the Bunched Stars. These, the Indians say, are children who once were lost from their camp. They had wandered away in shame because they had none of the yellow skins of the buffalo calves which hunters returning from the hunt had scattered among the children. Weary of wandering with no place to go for rest, they mounted to the sky. There they show themselves as the Bunched Stars, but never in the spring, the season when buffalo calves are yellow, but in the fall, when the calves are brown.

What an evening is foreshadowed by the appearance of the crescent moon above the mountains! How sharp are the outlines against the sky! All the distinction between foreground and background is lost, all the heights seem to join in the middle distance, forming one serrated silhouette against the starry sky. On such a night the writer watched an artist making, solely by the light of the moon, a sketch of this ghostly silhouette.

Those make a mistake who feel that scenery is the only thing worth while in Glacier. There are folks. And it is good to get acquainted with some of them. One day the author's driver on park roads was a Swedish school teacher, a student in the University of Minnesota. One summer, when funds needed replenishing, he would go to Glacier; the next summer he would attend a summer school.

"We're teachers, too," said two young women who overheard the driver's explanation. "We come here year after year to get a background for teaching physical geography."

A man in the seat behind was a station agent on the prairies of Dakota. "I'm here to get contrast; I must fill up with something against the snows of next winter," he explained.

Although Glacier is outside of the usually travelled highways from coast to coast, it receives each year visits from thousands who go by automobile. An hour spent in one of the many tourist camps in the park may be a revelation, if the men and women who have come from every State in the Union are encouraged to tell their stories.

"There'll be more of us as soon as they put through the road from Belton," one motorist said. "Now we can't get through to the Coast without making a long detour. I'm coming again when that road's open."

"No, I'm not traveling by auto," declared a man in the camp who said he was from Texas. "We use the railroad, though we hit the trail every summer, wife and I. Both of us have educational jobs, and are busy ten months in the year. We spend the other two months in just such places as this. Often we go to the Superior National Forest in Minnesota, where we row from lake to lake along the International Boundary. And how it pays! We gain strength for the new year of work. Then we have something to talk over all through the winter. To-morrow we go on a week's hiking trip. You are on the other side of the thin partition from us in the Chalet, aren't you? Then you must have heard us talking over our pack. We are trying to hold down the main pack, which I must carry, to forty pounds. It isn't too easy. But every extra ounce counts when we are on such a trail as we plan to take!"

A humorous addition to his confidence was given, unwittingly, that night. At about ten o'clock his penetrating voice came through the partition:

"Mary, don't you think your poor foot would be better off if we do not go on that hike?"

"My foot's all right," Mary replied. "If you don't want to go, say so; it will be all right with me."

"I sure want to go. But you must be up early, or we won't get a good start."

"But are you sure you put enough in the pack? Don't cut too short on the bacon. Remember last time. Better have a few pounds extra than not enough to eat. Food tastes good after a day's tramp."

Silence for a time. Then:

"Mary, I really believe it will rain to-morrow. We may have to postpone the trip."

Six o'clock on the day set for the hike. Mary stirred. But husband would not be roused.

Seven o'clock. "Jim, it's a fine day for our trip. See how the sun shines?"

Jim went to the window. "Yes, but there's a suspicious looking cloud. We don't want to start and have to turn back."

There were sounds of preparation. Then, a few minutes later, came Jim's solicitous voice:

"I'm worried about your foot. I feel that the strain to-day will be too much for it."

No reply. Evidently Mary silenced Jim with a look.

Eight o'clock. Jim was now dressing. "Yes, I suppose we'll be off soon—that is, if I can stand the awful load my wife has put in my pack. Think of forty pounds for a man of my slight build!"

Half an hour later. Again Jim's voice came through the partition. "Mary, somehow I feel that it is fifty-fifty whether we ever come through this hiking experience. Hadn't we better give it up?"

"That's as you say, Jim. I'm ready; I've been ready since you began to talk of the trip."

Nine o'clock. Down the road went Jim and Mary. Jim was whistling cheerily as if he had not a care in the world. And Mary looked fit for all she had ahead of her. Would this helpful conversation begin again as soon as they were out of hearing of those who were watching them? And would their reminiscences during the winter months be a repetition of the summer arguments, or would Jim brag of what he had persuaded Mary to do?

Those who are ready for such a long trail as that taken by Jim and Mary need have no hesitation in choosing the fascinating round trip across the Divide, then over the International Boundary into Canada's extension of Glacier Park which is named for its chief body of water, lovely Waterton Lake. On this trail the supreme moments come when the hikers stand on Indian Pass Trail, and look back to Belly River, then eight miles forward to Waterton Lake. This pass, by the way, does not lead over the Continental Divide, but crosses between two mountains without names, to the west of Mount Cleveland. Those who go this way find themselves amid some of the most rugged scenery in the Park, close by the Boundary. This was the first part of the region to be explored, for in 1861 the stone boundary monument was set on the summit, west of Waterton Lake, by surveyors of the International Boundary. Passengers on the little steamer on the lake can look up toward the monument along the wide swath in the trees which marks the line.

Or Waterton Lake may be approached by the highway, which leads past the receding summits of the Park, toward the Canadian line. For many miles along the way the lordly mass of Chief Mountain plays hide and seek with other mountain masses. Now it is seen, peeping over intervening ridges, again disappearing, finally standing out stark, bare, royal. Lewis and Clark on the map of

their explorations called it King Mountain; this was their mistaken interpretation of the Indian name.

The Indians have a legend that the Thunder Chief lived in a cave near the top of Chief Mountain. Whenever he smokes his pipe, he blows two whiffs toward the sky, then two to the earth; after each whiff the thunder crashes.

Chief Mountain is left far behind as the road goes on to Cardston, the Canadian market town of a vast prairie region, which boasts a million-dollar Mormon temple. Then the highway turns west through "a country of rolling prairies and luxuriant green, stretching away in gentle slope to the horizon." By the roadside are old buffalo wallows. After a time the highway enters the mountains about Waterton Lake with the same suddenness as Glacier is approached from the plains.

The Indians tell of the origin of this Waterton Lake country. Sokumapi, a popular brave, was carried by the Seven Devils to the underworld. There he met and loved a maiden—of course she was beautiful. Inspired by her, he led her out of the region of evil. With him he carried a stick, a stone, and a basket of water. They were hastening across the prairies when they espied the pursuers on their track. The stick helped him when the devils were near at hand; he threw this down on the prairie, and it became a great forest through which the devils had difficulty in passing. Again, when danger was imminent, the stone was thrown down, and the mountain sprang up. The devils were struggling with this barrier, when the basket of water was emptied, and a lake appeared. The basket became a boat, and in this the lovers made their way far from the devils.

And the Indians say that to-day the spirits of the lovers come to Omoksikimi, beautiful water, now called Waterton Lake.

The guests in the beautiful Prince of Wales Hotel that rises on a promontory on the Narrows where the waters of the upper lake join those of the lower lake, find it easy to credit such a tale, for they are in the country of romance where anything might happen.

The boat that has displaced the magic basket on Waterton Lake is a very real steamer. Of this, too, a tale is told. Some years ago the parts of the boat were imported from the United States, and were carried to the place chosen for assembling. "But we can't build the boat here," the owner announced a trying discovery he had made. "The duty would be beyond reason." So the parts were carried with great labor across the Boundary, and there the boat was built. When it floated to its dock at Waterton Village, the owner realized that he had saved many thousand dollars!

Waterton Lakes Park is small when compared with Glacier Park; it has but 220 square miles to the 1534 square miles in the latter. The mountains in this area are not so lofty. But they are remarkable both for coloring and ruggedness. Here and there are bits of beauty that cannot be forgotten. One of these is Cameron Falls, within easy walking distance of Waterton Village or the hotel. The cataract is catalogued in the mind of visitors with Trick Falls, which is close to Two Medicine and Glacier Park Hotel. These falls below the boundary are peculiar because, at low water, the flood comes through an underground passage to an opening in the cliff; at high water, however, the volume of water is too great for the passage and the opening, so much of it falls over the cliff above the opening. Those who see the waterfall in a dry season will not recognize it in days of flood; instead of a low waterfall, coming from the cliff, they see a much more lofty leap of the stream.

Cameron Falls, too, might be called a trick waterfall.

The waters of Cameron Creek come down close to the level of Waterton Lake on rock strata which are tilted at an angle of possibly forty degrees. One stratum extends out from the others perhaps twenty feet at its broadest. Water shoots down one edge of this, at incredible speed, as through an inclined flume. At the end it pours over. But sometimes when the stream flows full it spreads to the edge of the open flume, and passes over the edge of the rocks as well.

Down near the first of the falls there is a registry book in a box attached to a tree. The message is written so plainly that all can see: "If you must write your name, write here."

"We hoped to check the vandals who write on the rocks," said the Superintendent of the Park. "But they seem hopeless."

The writer saw an example of the vandalism mourned by the official. A family party, after reading the words, climbed to the trail above the falls. A boy looked longingly at a ledge underneath the falls where some one had written his name. "How I wish I could get there!" he said. Then his eyes lighted on a log at the water intake which suplies the little town. "Wouldn't you like to cross that log, Father?" he asked. "What would be the use, Son?" was the reply. "Haven't I told you often never to do anything that does not accomplish some useful purpose?" That sounded good. But as the man spoke he was searching for a sharp rock with which he proceeded to scratch his name on a bowlder.

When the Park superintendent was informed of the occurrence, he asked:

"What more can I do? Sometimes I think it would be well to follow the example of the forest warden who, finding a man's name and address on a rock, took a photograph of the desecration and sent it to the editor of the

writer's town paper. The editor was a true nature lover, and he printed the photograph, telling where it was taken. It is safe to say that no one else from that town will mutilate the rocks or the trees!"

How much better the Indians were than those who have followed them! "Indian Trails" tells of Bring-Down-the-Sun who said to his friends:

"My family comes every summer to gather wild berries in the valley; and we are glad to have you come, too. But I ask you to be careful of our berry bushes. Do not break the branches, or injure any of our big trees. I am looking ahead for the good of my people."

At sunset the study of the Cameron Falls and its surroundings is especially pleasing. And when the visitor turns away from the falls, and his eyes rest on Sofa Mountain across the lake, he notes with wonder how the shadow cast by the mountain behind which the sun has disappeared makes bits of Sofa Mountain look like the shadow of a gigantic house, with two great chimneys lifted high above the roof.

A pleasing road, passable for automobiles, leads up Cameron Creek, past the cascades which precede the falls over the inclined strata, through a valley bordered by mountains, toward Blakiston Pass and the boundary lines where Montana, British Columbia and Alberta join hands. Under the boundary ridge nestles Cameron Lake, a fisherman's paradise. Beyond Cameron Lake is Akamana Pass, where a road is to be built that will connect with a southbound road in British Columbia, and so make passage to Belton easy. When this is completed, as well as the road from Belton to Glacier Park and the wonder highway from Lake McDonald to St. Mary Lake, there will be indeed a marvelous road for the tourist that will be beyond anything of the kind on the continent.

Within sight of the boundary ridge there is a wooden

cabin which is left open for the use of campers and those who are weather-bound. Frontier hospitality and common sense are shown in the sign above the stove in the cabin:

"We don't mind if you use the stove, but please burn your own wood."

On the wall near by is a card on "Camp Etiquette:"

"Be a good fellow; don't grouch!

"Do your share of the chores.

"Don't criticize the cook.

"Don't use tent or tepee poles for firewood; get your own. Leave a little more firewood in camp than you found when you came.

"Leave the camp clean.

"Most important of all, put your fire out.

"Isn't that fair and square?"

To this some visitor has added in pencil:

"This is God's country; don't burn it up and make it hell."

An unexpected feature at the camp, just behind the cook's quarters is what looked like the frame for a very sturdy child's swing, except that, hanging from the cross beam, there is a single noose.

"What is that for?" the cook was asked.

"We have learned to hang up our meat at night out of reach of the bears. We had one here last night, and he managed to get the meat in spite of the rope."

The disgust of the cook was like that of the Forest Guard in the Blackfeet National Forest, close to Glacier Park, who returned from a trail trip to find evidences of destruction about his shack. At first he thought a tree had fallen on the roof, but when he entered the cabin he found ruin spread broadcast. On the floor in a grand concoction were flour, beans, rice, prunes, matches, dishes and bed clothing. Cans of tomatoes lay here and there

with small round holes neatly punched in two sides, their juice sucked out. A bear had climbed the large tree at the corner of the cabin, stepped on the roof, and after ripping away enough planks to enter had dropped down the wall to the table, explained the ranger. What he had not eaten he had playfully scattered over the interior before taking his departure.

There is a second fine automobile trip in Waterton. This leads past the golf course, with its outstanding view of mountains on two sides, and the lake in the foreground. Then it plunges into the wild country of Pass Creek, with a mountain on the left, whose banked colors of red, brown, gray, green, and yellow combine most effectively. A grove of aspen shows where the beaver go for material for their dams in the creek; the soft wood is just what they like. Many stumps in the clearing show how active they have been. At every turn there are vistas into the mountains. Green is the valley below Mount Blakiston on the left. Over the shoulder of the mountain leads a trail to Cameron Valley, on the route already described. Some day there will be a road where the trail is now, and a circle drive will be available for visitors to Waterton.

Even before the days of the trail oil drillers were busy in Cameron Valley. Their machinery was taken up Pass Creek, then over the trail to Cameron Valley. "How they managed I don't know," said the guide. "And when they arrived they were in trouble, for the oil did not gush out in paying quantities. They had to take the machinery back the way they brought it in, but—as you see—some of it was abandoned along the road we are trailing."

Beyond the abandoned machinery, the water of the creek flows in a chute formed by upturned rock which plainly shows glacial scratches.

"See the mountain sheep over yonder!" was the call of

the man at the wheel. "They are lured by the rock salt placed for them. And just beyond is a coyote. I wish I could tell you all I know about coyotes!"

But it is not likely he could have beaten the story of the ranger who told of two coyotes which were trailing geese on their feeding grounds. The geese, suspicious, were hard to approach. Yet one coyote managed to get close, and hid behind a rock. Only his tail was showing. This he waggled up and down. The geese, attracted by the strange motion, came closer. They seemed to be hypnotized.

Then the coyote came out, jumped up and down, ki-yi'd, did all the tricks of a trained dog. When the geese were where he wanted them, the coyote trotted off into the sage. Then the geese felt secure. But the coyote, hidden in the grass, fell on a fat goose. His partner came up, and the successful hunters divided the spoil.

Is this the story of a nature faker?

Most people have the notion that the coyote is despised by all who know him. Listen, then, to a frontier naturalist who says that it is to be hoped the coyote can never be exterminated. Then he adds:

"When, if ever, the yelp of the prairie wolf is a thing of the past, the West,—with all that was essential and characteristic and picturesque and most virile, all that was most to be cherished in it—will indeed have passed, utterly and for all time. Surely it is one of the Park's assets, and not the least, that the wild barking of coyotes is still to be heard in nightly chorus, echoing among the mountains and even the very buildings of the hotels. There is more of the primeval and the wild in that mingled barking, howling and yelping than in anything that remains of the West. As a phonograph record of some childhood song brings back the past, so this concerted barking of the coyotes remains to us unchanged—

to rebuild the covered wagon trains and revivify all that most appeals to us in the stories of Indian fighters, cowboys, explorers and gold seekers."

The road ends at Red Rock Canyon, where Pass Creek comes down in a curious canyon which leads from a rugged mountain. Not only is the Canyon odd, but its floor is most unusual. The clear water flows over a rock pavement that is a combination of pure white limestone and red rock, like the walls; this looks like a linoleum floor, though, of course, the bits of color are irregular. The water leaps in cascades over little precipices of the piebald rock.

Just over the creek is the stronghold of Frenchy Revere, mountaineer of forty years' experience. There he waits for hikers who would go with him into the mountains, far from the usual haunts of tourists. What stories he can tell! To listen to him is one of the greatest pleasures afforded to those whom he takes under his wing.

As he stood by the creek, he pointed to the mountains. "Look at that band of black on Mount Anderson," he said. "See it over there on Blakiston? Once it was continuous. Something, some time, carved out the gap between."

Picking up a rock on the trail, he said: "Look! Here are the tracks of animals of ages long gone, preserved for us in the rock. Or see that slab at your feet. There is what looks to be a deposit of mud on the rock. Before this hardened primitive worms left their tracks in the mud. See them there?"

Chapter V

THROUGH UTAH'S FORESTS

"How shall we go down to Salt Lake City?" asked a tourist in the automobile camp at Old Faithful Inn in Yellowstone Park.

"You have two routes, and it is hard to choose between them," was the reply. "You may go west from West Yellowstone, through magnificent forests, by tremendous falls in majestic rivers, passing through the midst of the Granary of Idaho, to Pocatello, and so south to the Utah line.

"Or you can pass through the marvelous Jackson Hole Country, past the Tetons, over the scenic Teton Pass, and on down, sometimes in Wyoming, again in Idaho, to Montpelier and Bear Lake, the beautiful highland body of fresh water, thirty miles long, and from five to eight miles wide, which is cut by the boundary line between Idaho and Utah. Next come the pleasing miles through the Cache National Forest. The journey through the Logan Canyon will prove one of the most memorable parts of your trip. The rim is at an elevation of some 500 feet, but Logan Peak, nearby, is more than 9000 feet in elevation.

"When passing through the Canyon you will wish to see Logan Cave, which enters 2000 feet into the mountain, and the monster juniper tree, 'Old Utah,' said to be the greatest and oldest tree of its kind, and perhaps the oldest living thing in the Rocky Mountain region. The greatest diameter is eight feet, and careful measurements taken in a crevice, left by the wrenching out of a mighty

limb ages ago, lead an experienced forester to fix the age of this gnarled and contorted tree as 3500 years at least.

"Following Logan River, you come to Logan, and there the two routes from Yellowstone become one to Salt Lake City.

"You see, you have an embarrassment of riches before you. Choose either route, and you will be grateful. Then you will wish to turn and take the other!"

Here, in the northeastern part of Utah, or Youta, the country of the Utes, or the Yutas, Brigham Young established Brigham, in 1859. Now this is the third largest city in the State, and is the center of a section as famous for its productivity as for its scenery.

From Brigham, the famous peach shipping center, Great Salt Lake may be seen, and, beyond, the entry of Bear River into the lake, where birds from the north find a feeding ground that attracts them by myriads. Naturally hunters have been fond of going there, but every true sportsman rejoices that a Federal Game Preserve will protect the feathered game.

Bear River, by the way, is the stream from which came the first white man who saw Great Salt Lake. In the winter of 1825-26 James Bridger with other trappers was on the upper waters of the Bear. A discussion as to the course of the stream led to a wager, and Bridger determined to learn the truth. In a boat of undressed buffalo skins he followed the deep canyon cut through the mountains, where, for three miles, the river flows between massive cliffs of many colors. At the end of the canyon his wondering eyes beheld the lake twenty-five miles away. When he entered its waters he thought it an arm of the Pacific Ocean, because the water was so salt. Two years later a party of trappers in skin boats circled the shore of the lake, in search of beaver. Then they learned the truth.

For some years beaver hunters gathered at the lake. One of them, James Beckworth, companion of Bridger, told a tall story that sounds like truth:

"I had set my six traps over night, and on going to them the following morning, I found four beaver, but one of my traps was missing. The float-pole also was gone, a pole ten or twelve feet long. Captain Bridger searched with me . . . We at length gave up. The next morning the whole party moved farther up the river. To shorten our route, Bridger and myself crossed the stream at the spot where I had set the missing trap. It was a buffalo crossing, and there was a good trail worn in the bank, so that we could easily cross with our horses. After traveling on some two miles, I discovered what I supposed to be a badger. . . . On closer inspection, however, it proved to be my beaver, with trap, chain, and float-pole. It was apparent that some buffalo, in crossing the river, had become entangled in the chain, and, as we conceived, had carried the trap on his shoulder with the beaver pendent on one side and the pole on the other. We inferred that he had in some way got his head under the chain, between the trap and the pole, and in his endeavor to extricate himself had pushed his head through. The hump on his back would prevent it passing over his body, and away he would speed with his burden, probably urged forward by the four sharp teeth of the beaver."

There may be a little more difficulty in believing Bridger's story of the deep snow of 1830 in the valley of Great Salt Lake, which continued for seventy days. The snow was seventy feet deep, and all the vast herds of buffalo were caught in the storm and died. The carcasses, however, were perfectly preserved. "When spring came," said Bridger, "all I had to do was to tumble them into Salt Lake, and I had pickled buffalo enough for myself and the whole Ute nation for years."

At any rate these narratives will help to make real the Bear River country to those who look from Brigham to the stream entering into Great Salt Lake. A few miles farther south, the town of Willard nestles amid luxuriant poplars in a valley that narrows to two miles between the lake and the heights which show plainly the various retreating shore lines of prehistoric Lake Bonneville, the gigantic glacier-fed body of water of which Great Salt Lake is called the bitter remnant. The claim that the town is old is supported not only by the record of its founding in 1853, but by the discovery, in 1914, by a mining engineer, of many mounds close to the town. These yielded pottery, stonework, hand mills, corncobs, cloth fiber, and beans. The engineer reported that the inhabitants on the site of Willard lived in rude huts made of "four upright and perhaps notched posts, supporting crosspieces on which lay lighter poles, and heavier timbers. Over these were layers of willows, reeds, or grass and mud."

Ogden, second city of Utah, is close to the entrance to Ogden Canyon, which provides one of the most remarkable rides in the mountains. This leads back for fifteen miles to the Wasatch Mountains, by the side of Ogden River. With every mile the canyon becomes more beautiful, as it narrows and becomes intimate with lofty mountains.

Logan Canyon and Ogden Canyon are only the beginning, for Utah is a land of canyons. Within a few miles to the east of Ogden two more should be seen before the journey to the south is continued. The nearer of these to the city, Weber Canyon, is the place of the passage through the Wasatch Mountains of the Weber River. Lofty grim walls, close together, rise far above the river, so that in the canyon there is the gloom of dusk at midday.

Much farther east, past the spectacular Devil's Slide,

Teton Range from Jackson Hole, Grand Teton National Park
(see page 39)

Jenny Lake, Grand Teton National Park (see page 39)

Trail to Timpaanogos Cave, Utah

Manti Canyon, Utah

Echo Canyon marks a way cut through the eastern ridges of the Wasatch. Those who see its grandeur today find themselves picturing the tens of thousands of seekers after new homes who went through the canyon before them. But they need not leave to their imagination the picture of the manner in which these people of an earlier day felt as they looked up to the lofty walls. An early traveler, long before the days of railroads, wrote of his impressions:

"Echo Kanyon has a total length of 25 to 30 miles. Near its head it is from half to three quarters of a mile wide, but the irregularity is such that no average breadth can be assigned to it. The height of the buttresses on the right or northern side varies from 300 to 500 feet. Echo Kanyon has but one fault; its sublimity will make all similar pictures look tame. We entered the Kanyon in somewhat a serious frame of mind; our team was headed by a pair of exceedingly restive mules; we could not but remark the wonderful picturesqueness of a scene of a nature which in fact seemed lately to have undergone some great catastrophe. The gigantic red wall on our right was divided into distinct blocks by a multitude of minor or lateral Kanyons, which, after rains, add their tribute to the main artery, and each block was subdivided by the crumbling of the softer and the resistance of the harder material. The color varied in places from white and green to yellow, but for the most part it was a dull ochrish red, that brightened up almost to a straw tint when the sunbeams fell slantingly upon it from the strip of blue above. A whole Petra was there, a system of projecting prisms, pyramids, and pagoda towers, a variety of forms that enabled you to see columns, porticoes, façades, and pedestals. Twice lines of bluffs, a succession of buttresses all fretted and honeycombed, a double row of steeples slipped from perpendicularity, frowned at each other

across the gorge. And the wondrous variety was yet more varied by the kaleidoscopic transformation caused by change of positions; at every different point the same objects bore a different aspect."

What would this traveler have said if he could have seen the Grand Canyon of the Colorado!

An amusing tale is told of Echo Canyon. In 1857, when United States troops were on the way to Utah, to quell what was called rebellion, they encamped 113 miles east of Salt Lake City. While they were there the new Governor, appointed at Washington, was taken to Salt Lake City by a company of Utah cavalry. "It was arranged to escort the Governor through Echo Canyon in the night time," says the historian. "Bonfires were kindled on the heights, and the small militia force attending him was so distributed and duplicated as to cause him to suppose that he was passing through the lines of a formidable and far-reaching host." Again and again he was stopped and asked to give the countersign, but he could not know that the same soldiers were responsible on each occasion; after speaking to him once, they hurried to another place which he must pass. Naturally the Governor was impressed, and he used his influence to stop the threatened war.

Salt Lake City, too, boasts a wealth of canyons; there are seven of them, from little City Creek Canyon, which reaches into the city itself, to the Cottonwood Canyon, and in between Emigration Canyon, through which the Mormons approached the new home of their dreams. "This is the place!" said Brigham Young, as he beheld the vale where he would have his people pitch their camp.

How bare everything looked then! But a transformation has been wrought so that the enthusiastic, even bombastic words of P. Donan, in a pamphlet long since out of print, do not seem far out of the way. Listen to him:

"Lift all New England and New York bodily a mile

above the level of the sea. Add 5000 feet to the height of Mount Washington, and seven thousand to that of Mount Mitchell. Throw in dozens of other peaks fully as high, all punching holes in the sky with their snowy crowns. Pile up, everywhere, hundreds on hundreds of mountains from ten to fourteen thousand feet high. Exaggerate fifty-fold all the wild notches and gorges of eastern America, and multiply them by scores. Send cataracts and cascades leaping and foaming down a thousand dizzy precipice channels. Toss in, from circling parks larger than whole States in the tame, small, notional East, a garden of giant statuary—statues of gods and genii and gnomes, Titans, Centaurs, and unnamed monsters, thousands of feet high—hewn by ages on ages of winds and waves and whirling waters. Cap all the mountain tops with everlasting ice and snow, and clothe their shaggy sides with waving forests of valuable timber. Fill all the valleys to the mountains' feet with orchards and gardens, vineyards and grain fields, bending beneath the burdens of their magnificent fruitage, and dot the horizon-bounded pasture-lands with flocks and herds, waist-deep in the very wantonness of plenty. Underlay the whole vast area with gold and silver, zinc, copper, lead and iron ore, marble of a hundred hues; anthracite, bituminous and cannel coal; salt, sulphur, soda, lime, and gypsum; and nearly every other metal and mineral in human use. Through countless wondrous canyons pour mighty rivers with water-power enough to run all the world's machinery. Smite rock-ribbed laboratories of Omnipotence, and unnumbered healing floods gush forth, rich in miracle-working virtue for the alleviation of many of the sorest ills. Add the twenty-five hundred square miles of that majestic and mysterious lake, whose waters hold in solution wealth enough to pay all the national debts of the world, and leave a portion for every man, woman

and child from Cape Cod to Yuba Dam. And over all throw the glory of a climate unsurpassed under heaven since sin and death climbed into Eden, and the translucent splendor of skies more radiantly sapphirean than ever hit the crystal archean above the far-famed beggar-hemmed and flea-girt Bay of Naples, or the Lake of Como—and you have a poor, faint, puny approximation to an idea of Utah."

But what trials and tribulations the Mormons had in the early days while they were conquering the wilderness! "Some of the people drop many big tears," President Heber C. Kimball wrote in 1856, in connection with his narrative of the difficulty of caring in famine time for his family of about one hundred souls. "And I suppose I feed about as many as one hundred besides," he added. At that time each person was limited to half a pound of bread!

Thought of the days of heroism and triumph led an investigator for the Smithsonian Institution to say of the country:

"The railroad connecting Ogden and Salt Lake City runs through a veritable garden of fruitful orchards, well-watered fields and green pastures. Close on the east rises a wall of bare mountains; westward, beyond the arable land, alkali flats stretch away floorlike to the blue depths of Great Salt Lake. Stately poplars guard each winding roadway; wide-spreading trees shade every farmhouse. Here, finally, is complete realization of that vision of a Promised Land which buoyed the first Mormon pioneers on their arduous pilgrimage to Salt Lake Valley in 1847. But the present charm and restfulness of this fertile nature is entirely a development of the first fifty years. Fur traders and trappers trading back and forth across its drab hills a quarter century in advance of the Mormons found little of beauty in it. Roving bands of Mountain Indians claimed the region when the trappers arrived,

but in a far more distant past, long before our written history began, other and entirely different Indian peoples came to occupy the valley. We know but little of these ancient folk, for the evidence of their presence has mostly been destroyed."

Down at the end of the valley of which these things were written is the great city of Mormondom. The fascination of Salt Lake City must be learned by those who go there. But let no one think that it is possible to exhaust the city's possibilities in a day, or even a week!

Thorough study of Salt Lake City gives an appetite for the trip farther south to the Great Basin country, where the few lateral streams sink or have no outlet to the sea. Many who read of the explorations of Fremont in 1843 and 1844 gained the idea that the Great Basin was flat, and that there were no mountains in it. Yet the fact, we are told, is that the country is "probably the most mountainous region, considering its extent, within the limits of our country."

And this section contains unlimited riches. Not only minerals, but millions of tons of phosphate, formed from the bodies of millions of tiny, shell-covered animals that lived countless ages ago; when they died they sank into the depths of the inland sea that covered all this region. Now they are rising again to fertilize the fields of many lands.

Until the traveler has been in Utah, he will find it difficult to credit the fact that one-third of the population of the State lives within easy reach of those who go down into the Basin from Salt Lake City, past the canyons that supply water for the Capital and recreation for many thousands; past Bingham where they are cutting down the side of a mountain for ore; past the Narrows, where the Jordan—bearing the fresh waters of Utah Lake to Great Salt Lake—finds its way through a narrow gorge,

and forms a strategic point from which the entire State could be controlled by an invading army.

A turn to the left, toward American Fork Canyon, and its great southern wall, Mt. Timpanogos, gives opportunity to look back on the fertile valley where Lombardy poplars, "Utah's most valuable tree," appear everywhere in stately array. Looking upon them, a visiting Frenchman marvelled, and declared that they gave to Utah a European distinction that he found nowhere else in the United States. The Mormon settlers who planted them by the roadsides and by the canals did not realize how wonderfully they were providing for the future of the land. Many residents of Utah do not appreciate the rich asset they have in this tree, but one of them, writing in "American Forests," insists that "there is nothing so lovely as they stand out in their stiff grace against the sky or hug a hamlet or farmhouse."

There are thousands of these graceful trees on and near the shores of Utah Lake. And there are other notable things there. For instance, on the north side of Summit Canyon, near the southeast shore, there are great bowlders on which some unnamed men made a series of rude carvings. Men and animals are represented, as well as some of the geometrical patterns always dear to the savages. Although the Utes passed through the canyon frequently—they had a trail there—they had no tradition of the identity of the rude artists.

When the Spanish explorer Escalante came this way he called this lake of the savages' picture gallery by the sonorous name "Nuestra Señora de la Merced de Timpanogotzis."

"Mount Timpanogos, off to the east, is a reminder of the Spaniard," said the author's Forest Service guide. "What do you say to paying a visit to the majestic peak? We camp up the remarkable American Fork Canyon."

How could anything be said but 'yes?' And what a mistake would have been made by giving any other reply! For the ride by the side of the rushing American Fork, steadily climbing among the trees, passing from side to side of the canyon, getting on familiar terms with the mountain slopes on either hand, studying the cliffs and ledges of white and blue limestone, was a delight miles long. This mountain pilgrimage into the heart of the Wasatch National Forest emphasized the words of the forest lover who said:

"National Forests are wonderful discovery lands, because they are just full of things you never dreamed existed there."

This man well may have had in mind the very ride up the American Fork when he continued:

" 'Somewhere in Utah' a road winds off up a canyon from a little town. No surprises to start with—just rocks, stunted cedars, piñon pines, and heat—quite the real Utah stuff, you know. But if the road goes on up the crest of the mountain at 10,000 feet elevation, everybody knows that you find rocky crags, knife sharp ridges, and wild scenery at all mountain crests, so you climb the last ridge with a mind made up to look for it all. Instead, you see far-stretching, level, grassy ridges, with clumps of spruce and fir scattered across them—ridge tops so level that a car can be driven for miles along them, whether there are roads or not."

And to think that all these unexpected wonders of the climb and the height are yours—yours not only because you have found them, but yours also because they are in the heart of areas set apart for the people, of whom you are one, by your Government! What if somebody did find them before you? Don't let anybody rob you of your rights!

"A few years ago there was nothing here but the beauty

of the road to attract the traveler," so the guide explained. "But in 1915 a miner discovered a cave up there on the slope to our right. He took out a mining claim for the property, and seemed to have the notion that he would grow rich upon the sale of onyx and formations. In 1921 we in the Wasatch Forest learned of his discovery. We sought the man. 'Yes, I'll take you to the cave for ten thousand dollars,' he declared. So it was up to us to find the cavern. Then what a search followed, as we scrambled up the steep mountain side! Finally, on August 21, 1921, we stumbled on the entrance, in a cliff of white and blue limestone, one hundred feet high. We entered, and for five hours we explored the wonders which you are to see for yourself. Can you imagine the thrill of going into the dark unknown, and wandering around at the end of our ball of twine?

"What did we find in the cave? See for yourself! Of course you will see everything in a much more favorable manner, for, by the gifts of the people in the valley, supplemented by the charge for admission, and a wonderful trail built by the Forest Service, the cave has been made both accessible and comfortable."

The trail up the steep side of Timpanogos would be worth taking even if there were no cave at the end. Such a mile of switchbacks, with ever-varying outlooks down into the canyon, and between the rugged walls toward Utah Lake and the Jordan Valley! What a kaleidoscope of color and variegated pattern is presented by the trees and the crops in the valley! A campground near the beginning of the trail provides for the needs of those who pause in their own cars for the trip up the mountain to the passage in the rock which has been a National Monument since October 14, 1922.

The cave is due to a fault, a slipping of part of the mountain over another part. Those who take advantage

of this fault are due for a disappointment if they think they will be compelled to creep uncomfortably along low, narrow passages. Iron stairways, on the slopes and precipices, steel carpet on the runways, and electric lighting that is a notable achievement, make an hour in the depths of the mountain a real delight.

Many think the beauty and variety of the formations in the cave is greater than in New Mexico's new wonder, Carlsbad Cavern, or in Virginia's Luray Caverns. Those who see them recall with keen delight the delicate tracery of the coral-like formation, the miniature lake—so smooth it looks like glass until visitors are tempted to throw stones into it to see if it will ripple; the stalactites in the Hanging Garden; the Chocolate Fountain, which is so realistic that women have been known to try to taste the chocolate; the Heart of Timpanogos, a graceful pendant formation through whose ventricles the light glows until it looks as if blood were there.

"That Heart of Timpanogos has a story," said the guide. "There is a legend that an Indian maiden lived here in the cave with her lover. She escaped one day while he was hunting. While she was wandering, she killed herself. He found her body, and fell dead beside her. Then—as the story is told by J. Cecil Alter—"the god Timpanogos clasped the two young hearts into one and placed this beside a mirroring pool in the cave, where it hangs today." The maiden's body, we are told, was lifted to the mountain crest, to remain while the mountain endures, as the Sleeping Woman of Timpanogos.

"You have seen the Heart; before long you will see the figure of the reclining woman, when you are nearer the summit, which is 12,008 feet above the sea.

"You must expect legends like these here in a land of romance," the guide continued. "Over on the other side of the mountain, in Provo Canyon, you will see Bridal Veil

Falls. These are the monument to the beautiful daughter of a chief of the Uintah Indians, who, after her people were defeated by the Piutes, decided that death was better than capture. She jumped over a precipice, and the falls weep for her departure."

The Timpanogos Loop Road winds in and out of forest coves, past camp grounds and summer homes, within sight of the Timpanogos granite peaks. On the other side of one of these is the only glacier in Utah, and at the foot of a trail that leads to the summit a pleasant wilderness hostel awaits the pleasure of travelers. Above is the semi-amphitheater of peaks, and the fabled figure of the Sleeping Woman of Timpanogos. The buildings are in the grove of the quaking aspens—the "popple trees" of the East—which add so much of beauty to the mountain forests of Utah. These trees are favored by the makers of excelsior, and large revenues are secured from them. They are favorites of the bears also: see the marks of their claws far up on the trunks. These trees have been called the optimists of the forest, because, after a forest fire, they cover the desolate strip of country with beautiful, quaking green; then the evergreens seem to know that they, too, now that they have a protecting cover, must spring into life.

This most unusual mountain highway crosses on a ridge 8000 feet high, then descends through more amazing miles to Provo Canyon.

"Now can you tell who has the better of the claim to superiority in natural scenery—the American Fork or Provo?" the question came. That question can be asked. But can it be answered with any satisfaction? All that can be said is that Mt. Timpanogos is one of Utah's marvels, however it is seen, wherever it is approached.

Nor can the trip to American Fork Canyon or Provo Canyon be compared to that other wonder trip up from

Ephraim into the Manti Forest, through the Sanpete Valley with the Gunnison Plateau on the left, to the Great Basin Experiment Station and the Wasatch Plateau beyond.

A visit to the Great Basin Experiment Station, 8950 feet above the sea, is a revelation. What does the United States Forest Service accomplish? How does it do its work? What is the result of grazing on forest lands? There is graphic answer to these questions at the station. With what care little fenced-off plots of grass are watched! How fascinating is the study of the settling basins which measure the amount of sediment removed from high mountain watersheds under different conditions of plant cover! And it is of interest to note that the fences near the summit are not for the protection of the road from snow, but to guide the melting snow into areas where the water is most needed.

"The object of our study is to ascertain how extensively watersheds which are so vital to irrigation and settlement in the West may be used for grazing purposes," explained Superintendent Forceling.

Results? Before the days of flood control through Manti Forest work the town of Manti had serious thoughts of moving its location because of repeated destructive floods in Manti Canyon. But this menace has been taken away. Before the beginning of a scientific study of grazing, but 16 per cent of the ground in the forest was covered with plants; now the figure has increased to 40 per cent. And at the same time grazing on forest lands has increased until all the expenses of Manti Forest are paid in this way.

These results have not come in a year, or in five years. For eighteen years the experiments have been going on. "But we cannot grow weary; of course, a long time is required to rest the soil when it has been depleted by misuse," remarked the patient experimenter.

That response from the Man of the Forest brings to mind the wail of the poet Schiller, made while visiting a forester in the Thuringer Wald. Having found in his friend's study a map of his forest showing the cuttings that would be made during the next 220 years, he said: "You foresters work quietly and entirely free from hope of reward, while the fruits of your work ripen for a late posterity. Hero and poet attain a vain glory; I should like to be a forester."

But there is rare beauty and careless relaxation as well as cold calculation at the Experiment Station. The light of the setting sun makes the trees and the mountain wall beyond glow radiantly as the superintendent made his explanation. And during the few minutes of gathering dusk one of the foresters, wandering amid the wild flowers in a grove of aspens, threw himself forward on the ground to catch a young snowshoe rabbit. Four times he failed; then he was able to hold up to view the little animal which turns white in winter, eats snow, and has broad hindfeet like a snowshoe. When the lesson in zoölogy was over, the rabbit was allowed to scamper away in the undergrowth.

Then in the morning there was the beauty of Blue Bell Flat, where in July the slope is one mass of blue. For wild flowers grow luxuriantly about the station. There are pentstemon or wild fox glove, wild geranium, columbine, valerian, violets, and great masses of the sunflower-like wyethia. And there are plenty of sweet annis, wild hollyhock, bluebell, wallflower, and low larkspur.

In climbing to the Wasatch Plateau from the Great Basin it is of interest to note the successive zones of vegetation. First comes the sagebrush zone; then the piñon pine and juniper, the oak, the aspen and Douglas fir, the alpine fir and Engelman spruce, and finally, the timber line, above 11,500 feet. Then the reversal of the progress

of the seasons is noticeable with rising elevation. When it is midsummer in the valley, winter is just breaking on the summit, as is shown by the snowbank through which the dogtooth violet is pushing its way to the sunlight.

On the plateau where such contrasts are found, 10,000 feet above the sea, the road leads for fourteen miles along the ridge.

"Some day we'll have fifty miles of road here," the assurance was given, "between Soldier Summit on the north and Salina Canyon on the south. On a clear day we can see the mountains in both Colorado and Nevada. But look about you, and see something more worth while. Over on your left is a valley which is a fault in the plateau, two miles wide and many miles long. On the right is Manti Canyon; in its upper reaches is a favorite feeding ground for elk. We ought to have many visitors here. If it were only near Denver, or more easy of access from Salt Lake City, it would be famous."

The descent from the Wasatch Plateau and the ride between the Powell and Fish Lake Forests brings new thrills—especially if this is taken in the companionship of a man who gives entertaining bits of information. Like this, for instance:

"Next time you look at a large scale map of Utah, notice the jog in the Salt Lake Meridian, in the Fish Lake Forest. Want to hear the story? In the sixties, when surveys were being made in this region, the chief surveyor placed a stake at a certain point, after this had been fixed with great care. Before he went away, he left this location in charge of a man in the neighborhood. 'Be careful of that stake!' he was charged. Naturally the man thought the stake itself was the important matter. The only danger, he thought, was from marauding Indians. 'They must not get the stake!' he told himself. As a precaution, he withdrew it from the ground, and carried it

to a safe place. Soon he learned that the chief surveyor was about to return. So he brought the stake from hiding, took it to the field, and planted it—as he thought—in the original location. Innocently, the surveyor on his arrival took what the stake said for truth that could not be questioned. The resultant surveys were all wrong by more than two miles. And that is the reason for the jog in the Salt Lake Meridian.

"Over on the right is the Powell National Forest. Any tourist ought to go there and climb the mountain over to Cove Fort, which the Mormons built in 1865 for protection from the Indians. Then if he will drop south a few miles he will come to Beaver River Canyon. Close to this little farming community, on a terrace above Beaver River, are remains of adobe huts, similar in some ways to the dwellings of the Pueblo Indians. Who were the builders? No one can tell. But we like to think of these prehistoric settlers."

A side road from Hillsdale leads through the glowing Red Canyon, where erosion has given to the rocks forms fantastic but most beautiful. The green of the western yellow pine and the characteristic red of the rocks—especially if these be seen in the light of the setting sun—make a contrast that is decidedly refreshing. Two tunnels through the cliff that would interfere with the road add appreciably to the beauty of the ride.

"How many, many people have come to Red Canyon, then have gone back home, gratified by the thought that they have seen the marvels of Bryce Canyon!" the Man of the Forest remarked.

Chapter VI

BRYCE CANYON, EROSION'S TRIUMPH

RED CANYON may be wonderful, but Bryce Canyon—since 1928 a part of the noble National Park system—is so much more marvelous that its vestibule in the mountains of Powell Forest is forgotten. The real attraction—by many thought the most wonderful bit of erosion in the world—is on the southwestern edge of the forest, overlooking a most fertile irrigated valley where, after the manner of Utah, the ranchers live in towns, from which they go out day by day to their work.

Bryce Canyon has been described as a gigantic scallop in the Paunsaugunt Plateau. One hundred miles away to the southeast is Navajo Mountain. "The entire country between is a labyrinth of extremely deep canyons, flaked everywhere by castellated spires and domes," to use the words of Dr. Pack of the University of Utah, who each summer leads a party to these wonders.

The canyon is millions of years old, but, in the knowledge of travelers, it is only a little more than twenty years of age. It received its name from Ebenezer Bryce, a Scotchman who entered Utah in 1850, and in 1875 built a cabin at the mouth of the canyon. Yet the first party of visitors to view the Canyon came from Salt Lake City in 1908. In 1916 the first photographs of the outstanding features were printed. The first road to the edge of the abyss was built through Red Canyon in 1923, and in 1925 the enticing hotel for tourists was opened near the brink.

"I was brought up in Tropico," said a member of the staff at the hotel. "Our village is five miles by trail across the canyon, but the distance is fourteen miles around by road. For years the people there paid little attention to the canyon. Sheepmen did speak of it; they talked of it as a hard place to go around with their sheep. But a few years ago the public schools began making an annual pilgrimage into its depths. Now we know more about it than many visitors who come to the State. They think they have seen Utah, though they have not looked into Bryce. Can you imagine it?"

"Cameo mountains" was the name given by J. W. Powell in 1875 to weird formations like that at Bryce, where erosion of highly colored rocks shows the secrets of rocks of many ages that have been uncovered to give joy to all who behold them. These processes of disintegration are still going on; at Bryce it is possible to see perpendicular cleavage in the turrets and pinnacles. "In a few thousand years they will divide; some day they will disappear," insists a geologist.

One visitor who stood in awe on the brink of the plateau and looked off at the splendid vision spread out before him spoke of seeing "gigantic tulips on stems of stone." Another enthusiast spoke of "that beautiful garden that blossoms in columns of stone." Still another, an artist who went intent on putting on canvas what he would see, after one long look said, with a sigh, "It can't be done."

But while it may be impossible to transfer to canvas the picture spread out from the rim, the visitor notes with pleasure that he can see the picture without wearisome turning and twisting and travel to many points. For from the plateau, which is 800 feet above the sea, he can take in at one sweep of the eye the graceful horseshoe canyon, which is but three miles long and two miles wide.

Not that one glance is sufficient. Fascinated by the

prospect, most visitors look and look and look again. The hours of daylight do not suffice; night finds many on the brink, peering off into the one thousand feet down to the floor of the canyon.

For there is so much to see in these formations of pink and white sandstone. Yonder is The Temple of Osiris. And see the Sculptor's Studio, the Queen's Castle, and those structures of Fairyland,—the Castle of Oz, the Wizard of Oz, Dreamland Castle! Monarchy and republic stand side by side, for near the Round Tower of Windsor Castle is the Capitol of Washington, white, with a red, red cupola. See that church tower, crowned by six perfect pinnacles! Yonder is the Tower Bridge, for all the world like the famous structure across the Thames. And when the visitor is asked to pick out the Wall of Windows, he finds no trouble in doing so. In fact, the formations are so aptly named that it is difficult not to see things that stand out so clearly.

Every hour of the day is a choice time to look into the wonders of Bryce. But the best moments are at sunset and sunrise. When the setting sun touches the coloring the far formations seem to be alive; at every instant they change, taking on new forms of beauty.

Stand on the rim just before sunrise. Pinnacles, towers and turrets give the impression of a ruined city, from which the people have long departed. One thinks of the buried cities of Central Asia, or of the rock temples of Petra. The light changes. The streets far down at the base of the columns, the darkness accentuated by the pines, seem to call to those who left the city but a few hours before. It is a silent city, peopled only by gnomes and fairies. It is a sleeping city. The deserted churches and public buildings are waiting for the coming of the awakener. The colors are vivid, yet they seem dead. The

finials of the columns and turrets stand out with the distinction of cameos.

Now the sun begins to send his first warnings over the plateau and far across the canyon. The first light strikes the wall to the southwest. The red deepens to orange. The white glistens like snow. The fantastic shapes stand out with new intensity. Here, through a thin wall, the sun shines as through a cathedral window. All the results longed for in vain, achieved only in part, by those who scheme for lighting effects, indirect or direct, are outdone so completely that a glimpse into the canyon at this moment would be at once their amazement and their despair.

Through gaps in the mighty buttresses, great windows in lofty walls, loopholes in fortresses, tunnels through jewelled ridges, come visions of glory that surpass all dreams.

But how much more is to be seen by those who will take one or more of the easy trails that lead from the plateau down into the depths, then go here and there among the formations! Though the canyon is small, there is half a day's good sport for those who enjoy hiking.

The Navaho Trail may present some difficulties, where hands must be used as well as feet. Soon the hands look black, but this is only because of the contrast with the sandstone; it is as if one looks through colored glass.

Now the trail leads under the red sandstone. Again it passes through a narrow defile between two gigantic cliffs—still red, intensely red. A fault in the formation of one makes an immense overhanging cliff. Below, the color is not so deep, for the light does not come down so far. Yet a look back shows the sunlight on the cliff near the brink.

Hear the echo? Boys are calling to one another. The effect is weird, but it is in keeping with the surroundings.

The whir of fairy-like humming birds is a striking contrast to the echo.

At the mouth of the defile a group of white pines lift their straight trunks toward the summit of the cliff, but they have to give up in despair. Their lament is sounded raucously by a Clark crow, perched at the very top of one pine. This is the bird of many names. One term of affection given to him is Camp Robber. The packers tell how he steals bacon from the frying pan and potatoes from the ashes so hot that they cannot be handled. But the men of the forest will not take vengeance on them; they believe that the souls of their dead comrades have passed into the crows!

The pines and the crows are left behind. Now the trail leads on to an open amphitheater. Cliffs and turrets are everywhere, and pines grow on the floor. Then another amphitheater—no sooner is one left than another appears.

The Navaho Trail has led into the Ute Trail, and now comes the Comanche Trail. Note the heavy odor of the fragrant pine needles. The heat of the sun is tempered by the breeze that whispers through the pines. Some insist that the formation called The Great Organ is responsible for the music, but the pines are a more likely explanation. At any rate pines and a stone organ combine to put the tramper in a state of awe that adds beauty to life.

A mighty cliff, overhanging the road, looks to the timid as if it might fall on them, and they hurry on their way. But now they see there is no reason for haste; they are secure—a great pine fell years ago against the cliff, and has grown gaunt and gray while supporting the rock. So the path is safe!

Beyond the laboring pine is a steeple-like cliff, on whose side, near the summit, are junior pinnacles of gleaming

white. One of these looks as if the architect were still at work; out from the pinnacle's base juts a scaffolding, dark-colored, on which any workman might stand in security.

As if the architect were still at work? Yes, the Architect is working daily on this stupendous revelation of Himself!

A pause some distance up the steep trail. Again the way is between beetling cliffs, farther apart than those at the side of the down trail, and absolutely perpendicular; perhaps they are three or four hundred feet high. The opening between frames one of the finest views. But why use superlatives in speaking of views at Bryce Canyon? Next instant the speaker will have call for an expression still stronger. So what is the use in exhausting the language?

Just the same, the pinnacles frame a marvelous view, across the canyon, to the pines in the depths. Then on a higher level there are more architectural marvels. On every side there is a hint that an artist passed this way, and that he spilled the colors from his palette in despair of imitating the coloring. Is it strange that a visitor to the Canyon said, in all reverence, "God did a mighty fine job when he put his hand to these depths."

There is a fable of a child who, on entering a garden of rare trees and flowers was told that the could have one handful, only one, of anything he would take. How often he filled his hand, only to empty it because he wanted to fill it again with something he thought more worth while. So it is at Bryce, either on the rim or in the trail, There is always something better, richer, more beautiful beyond. On the Comanche Trail, for instance, near the summit, a narrow ridge, dividing two little canyons, which offers precarious foothold for the observer, affords rapturous visions, first between the precipices, then, when

one precipice turns to the right and drops at the outer edge, through a frame that prisons a wonder picture. The top of the frame is the sky. On either hand are red rocks. Below is white sandstone. At the base of the opening there is what appears to be a lining of green moss. But why try to describe what can be seen there? Like the artist, one can only say, "It can't be done!"

Go down into Bryce! See what a friendly canyon it is! And when you climb to the surface, and the memory of mystery remains with you, you will realize that you have been in the Workshop of the Almighty! And you will sympathize with the traveler, who, knowing that he had for the Canyon but the hours from sunset to ten o'clock next morning, spent but four hours in bed and cut out both dinner and breakfast! For what is eating or sleeping, when you can see Bryce?

What was once a reservation, the Powell Forest, cared for by the Agricultural Department, is now a National Park. For on September 16, 1928, the Forest Service made formal presentation of the Canyon to the Park Service. So Bryce Canyon became the twentieth National Park.

Some say that to see Cedar Breaks, after seeing Bryce, is an anti-climax. But they are wrong. Not only is the smaller canyon well worth a visit, but the ride of two or three hours between the two canyons is a wonder. A portion of the trip is over the lofty ridge in the Dixie Forest, past inviting groves of aspens and pines, ridges of lava, piled up by the roadside, meadows of enormous extent, glowing with wild flowers, and Navajo Lake, in the forest below the road, once the scene of a fierce battle between settlers and the Navajos.

Then come the Breaks, almost on a mountain top, for the rim is 10,315 feet above the sea.

"Who said this sight would be an anti-climax?" a visi-

tor asked. "What if the area is comparatively small? Look at the amazing coloring! They say there are sixty distinct colors in the varied triumphs of erosion. I can believe it. If Utah had nothing to offer the sightseer but Cedar Breaks, visitors should go to it from all over the world."

This is what the residents of Cedar City thought when, after an adventurous trip up Zion Canyon, only a few years ago, they stood in triumph on the edge of the Breaks, where they looked down breathlessly on the tangle of buttresses, amphitheaters and bands of color.

And this is the thought of the fortunate travelers who, on reaching Cedar City by rail, takes the bus trip provided for them to the triple triumphs of nature in southwestern Utah, Cedar Breaks, Bryce Canyon and Zion Canyon.

Chapter VII

IN AND ABOUT ZION NATIONAL PARK

The twenty miles of highway between Cedar Breaks and railhead at Cedar City afford many views of tremendous extent and beauty. A clear, rushing creek is by the roadside, and for a long distance the passage is down a leafy canyon whose side walls are covered with spruce and fir, with rocks jutting out here and there.

Then come sixty miles more to Zion Canyon, the Mormon Valley of the Patriarchs, which "lies like a palette of brilliant colors amid the desert's tawny sands." How easy it is now to pass over this sixty miles!

There is a marked contrast in the means of access to Zion Canyon ten years ago and today. Now everything is made easy for the visitor. The construction of the Union Pacific Railway's line from Lund to Cedar City and the de luxe transportation provided make the tour one continued delight.

It is worth while to tell of the author's first visit to the region of wonder, because of today's contrast with the time when it was almost as difficult, except for the length of the journey, to reach Bryce Canyon and Cedar Breaks as it is today to take the pack-horse trip to the Natural Bridges, far to the eastward.

In 1919 the journey to Zion—then still a new National Monument, with aspirations to become a National Park—might have been much easier if the wayfarer had gone to the right place to purchase the necessary trans-

portation by auto from Lund in the Escalante Desert, over more than one hundred miles of desert and mountain, to Zion. But the railroad agent in the East who was asked for a ticket said he had no instructions concerning the route he was assured was open, and advised the purchase in Salt Lake City. But there connection was so close that the ticket was neglected.

The stage was scheduled to leave Lund early in the morning. "But you'll find the driver a hard-boiled egg; no one can get a good word from him!" was the warning. So that driver was sought in ample time. He was worth cultivating. He was found in his one-room shack where he was keeping bachelor's hall, after the manner—and lack of attention to detail—of the old prospector. Now to rouse a man from slumber is not the best prelude to a good understanding. As he raised himself on his elbow, he said:

"So you're going to Zion, are you? Well, Stranger, you're in tough luck. Yes, I have the government contract, but you're the first passenger of the season. Now if you had a ticket I'd have to carry you through, but it would be mighty hard to have to do it. Your having no ticket lets me out. I go as far as Cedar City. Then I'll see if I can get you the rest of the way."

Cedar City is a good forty miles away, across the desert, with a stop at a sheep-ranch, where the adroitness of the shearers in laying aside a heavy fleece in less than two minutes was startling. At Cedar City the hard-boiled egg turned over the traveler to another mail-carrier, bound for Anderson's Ranch, twenty-five miles farther on. There he phoned to the Park.

"We've got you fixed now!" the mail-carrier announced, with satisfaction. "I'm to take you to La Verkin Forks, at the beginning of the long climb up toward

the Park. There I am to wait with you until the Superintendent's messenger meets us."

That second stage of the kaleidoscopic journey was a delight. So was the relief from the burning heat of the desert when the sky became overcast.

"Thunderstorm?" the traveler asked.

"Not on your life!" came the reply, made with a smile of pity for his ignorance. "It never rains here at this time of the year—not much at any time. That's the reason this is a desert."

"Well, if I were in the East I would say a storm is due within half an hour!"

The first reply was a pitying glance from the mail-carrier. The second reply came almost immediately. The clouds opened, and the rain fell in torrents. Noting the anxiety of the man who was so sure of dry weather, the tenderfoot asked him if he was thinking of the watercourses he would have to cross on his back track to Anderson's Ranch. They were dry when the two men passed over them, but soon they might become dangerous.

"Hadn't you better hurry back at once?" he was asked.

"What! And leave you alone in the desert! Stranger, that isn't done out here. I'd never hear the last of it."

"I'll be all right. I have an umbrella. And they are coming for me."

And the tenderfoot looked hopefully up the long slope in the direction of what was left of the old Mormon village of Virgin. The man insisted, but with an evident longing to be on his way. If truth were told, the desire to persuade him was not due so much to thought of his welfare, as by the feeling:

"If he'll only go, I shall have the wish that has come to mind so many times as I have crossed the desert—to be far back from the railroad, alone, for the sake of pictur-

ing faintly for an hour the feelings of the pioneers who faced the dreary waste for many dangerous days."

There flashed into memory a passage from a favorite tale of desert trial, whose scene was in California's Death Valley, only a few hundred miles from La Verkin:

"Not a tree, a shrub, or spear of grass could be found —desolation beyond conception."

The mail-carrier roused his companion from desert dreams by a message, as gladly received as it was reluctantly spoken:

"Well, since you insist, and since the car is sure coming for you, I'll be on my way—that is, if you're still sure everything will be all right."

So the wayfarer watched his car recede, and looked up that slope down which his third driver was to come.

Five minutes more, and the rain was over. The sun burst out with violence designed to make up for the brief reign of the clouds. Shelter would have been welcome, but there was none, not even a rail fence to sit on. For fifteen minutes the man who had been left alone enjoyed the view of mountains, and sage-brush, and of the rim of green along the river several miles away.

Then he found himself watching that slope. For an hour there was no movement. Then came a rancher, driving a team of husky horses, attached to a hay-rick and a pitifully small load of alfalfa; it was so small because the way led up that long slope. The driver looked curiously at the wayfarer, and asked:

"Anything I can do for you?"

"Thank you, no; I am just waiting for a car from the Park."

"What park?" he asked. "I never hearn tell of no park around here. There's only rock and sand, 'cept where the water makes things grow."

After further explanation as to the park, a light broke on his face.

"Seems to me I have hearn about some big colored rocks there are up yonder a piece. I've never seen them, though."

What a description for Zion Canyon! It is safe to say that today few who live within such easy reach of the scenic marvel that has stirred the world could make such a remark.

"Well, we mustn't leave you here. I wouldn't sleep easy tonight. If you'll ride with me, maybe we'll meet that man you are talking about."

Followed miles of heavy pulling up the long grade. At length he came to the fork where he was to turn off to his home, the old stone hotel of early Mormon days at Virgin, on the banks of the river of that name.

"Have you a telephone at the house?" he was asked.

"You bet! Want to use it? Then come down with me!"

But he paused as he was about to turn into his own road.

"You'll be in a hard fix if that man drives down to La Verkin while we're in the house. Of course you could stay with me tonight. But you say you have to be at them rocks tonight. You go down to the house, and use the phone, and I'll stay here until you come back. Then I can stop the machine you say is coming for you."

There was hospitality! He had been on a long day's journey, the time was nearly six o'clock, and he proposed to wait within sight of home during the half hour spent in going to his telephone!

Connection with Zion proved impossible. The reply came from the little Mormon postoffice near the entrance to the Canyon:

"Are you the man they were coming to meet at La

Verkin? Didn't you get the message sent to Anderson's that you were not to come? We've had a cloudburst, and the roads are not fit for use."

Back to the waiting ranchman. "You'll have to come down to the house," he said. "Now you must take potluck with me."

But the purpose to reach Zion that Saturday night was unchanged. It was necessary to see the Canyon, and then to be in Los Angeles on Tuesday afternoon. This was Saturday evening. Surely walking would be good.

But at the ranchman's house was seen a stripped Ford which looked as if it might go. The owner proved to be a young man who said he would go the remaining twenty-five miles of the way, if he could get gasoline. This was pumped from the tank that operated the windmill when the wind did not function.

"How much will you give me?" began the bargaining.

"How much do you want?"

"Make me an offer!"

"How about five dollars?"

"Make it six and it's a go!"

As the passenger was about to step in, but was halted:

"Wait a bit. I've been thinking. It's not fair to the garage men around here to cut their rates. Ten dollars is the price to the canyon."

It would have been easy to remind him that there were no garage men within sixty miles. But it was easier to capitulate.

What a drive that was! How the Ford slipped and slid in the wet clay on the shelf above the Virgin River!

The man in charge, the veteran W. W. Wylie—who had been responsible for the devolepment of "The Wylie Way" of camps at Yellowstone Park, and had taken the government contract to open up Zion after a similar fashion—saw the passenger pay his Mercury.

"How far did you come with him? Did he ask you more than five dollars? Well, he'll refund the difference. I'm opening a new national recreation ground, and we are not going to have any gouging here! I'll get it back, never fear. I've seen him before, and he'll come again. There's only one way into the Park. Next time he comes he'll be told the Park is closed to him unless he antes up that overcharge! But how did you get here? You're the man I told not to come till Monday? Well, you have had a tussle for it. I didn't think anybody could get here to-day."

By that time the two men were in the cozy cottage where a fire of pine logs was blazing briskly. Mrs. Wylie came in.

"Ma, here's a man who has had a mighty rough time getting here. I know he's hungry. Can't you do something for him?"

Half an hour later the call came to sit down to fried chicken and strawberry shortcake! Is it any wonder that Mr. and Mrs. Wylie were thought of so pleasantly by travelers of ten, twenty, thirty years ago? They were always doing things like that.

Early next morning the Superintendent came riding to his guest's delightful tent shelter, with a led horse. "Come on!" he said. "Let's have a view of the Canyon!"

What a trip that was! And what a surprise was there when the bill was asked for. The reply to the objection that it was pitifully small, was unanswerable:

"That supper last night? Ma did that. The horses? You can't pay for my horses. There isn't any charge for a guide; I took you about because I wanted to. That deduction? Didn't I tell you I'd get the overcharge back from that scamp who brought you in?"

There was not the end of his kindness. "If you're to

be in Los Angeles Tuesday, you must go back to Cedar to-night. I didn't know how you were to do it, but there's a young man here in a Ford. He's the nephew of Strickland Gilliland, of 'Off again, on again, gone again, Finnegan' fame: you know that rollicking poem. He says he'll take you with him. Want to go?"

Who wants to leave Zion? But engagements called, and the farewell to Zion had to be spoken.

The new host of the road urged his passenger to go on with him from Cedar. "We'll meet your train upstate, about four o'clock Monday afternoon. Think of the time we'll have together! Won't that be better than a day in Cedar, and a trip beginning at Lund?"

"But how about those stage drivers who brought me to Cedar and to La Verkin? I promised to see them on Monday. I haven't paid them yet."

"Don't fret about that; they will be glad enough not to see you."

"Why? I owe them money."

"Send it to them by mail."

But their kindness and helpfulness demanded special recognition. So the passenger stopped in Cedar.

On Monday morning he saw down the street the man who had done as he was asked at La Verkin, in the desert. As the man approached, he turned down an alley. This seemed accidental, but the truth was learned when he was followed:

"Yes, I tried to avoid you," he said. "I ought to be glad to see you, for I've been thinking about you ever since I left you Saturday afternoon. Where have you been? How did you get back here?"

"I have been at Zion."

"Why, when I got back to the Ranch they gave me the message telling you not to come. I'd have come back for you, but I had my route to finish."

Then he was told the story which, to the teller, seemed very prosaic. But he thought otherwise.

"Well, I sure am glad! And a load has been taken from my shoulders. Bill? You don't owe me anything. What, charge you for leaving you in the desert? I ought to pay you! You insist on paying me? Well, that beats my time."

Two hours later the "hard-boiled egg" from Lund was confronted. He, too, wished to avoid the interview.

"Don't blame me!" he pleaded. "I did my best. I burned up the wires trying to get you through. And you couldn't make it. . . . You say you got to Zion? Well, I'll say I'm glad. Pay me? No, you won't pay me a cent. If you'll go back with me to Lund, I'll be glad to call it square."

"But you'll take the telephone tolls, won't you?" he was asked.

"What business is it of yours to pay for tolls that didn't get you where you wanted to go? Well, I'll take them if you insist; but I don't see why you should pay for anything, after the way you've been treated."

Not much of a story in itself, perhaps. But isn't it worth while for the light it throws on the whole-souled people who were neighbors of Zion Canyon in the days of its beginnings? And for the contrast presented to-day when a journey to Zion is as easy and as delightful as a jaunt around Niagara Rapids on the Gorge Railway or through Yellowstone Park by bus?

It is difficult to credit the fact that such an outstanding marvel as Zion Canyon was not famous many years ago. Of course it was known to the Indians, but they were slow to enter the sacred precincts. The Mormons knew the valley in 1862, but they did not say much about it except to their own people, for they looked upon "Little Zion" as a refuge from the Indians, and a pos-

sible refuge from others who might wish to interfere with them. Cattle men knew of it, but they had no desire to publish the tidings of what was proving such an unusual grazing place. Major Powell explored the region in 1870, but little attention was paid to his description. In March, 1901, the editor of a paper in Des Moines, Iowa, rode from St. George, Utah, into Zion, taking six weeks for a journey that now calls for three hours. In 1903 F. S. Dellenbaugh visited this outstanding beauty spot of Utah, and told of it in Baedeker.

Even when President Taft issued his proclamation setting it aside as the Mukun-tu-weap National Monument, in July, 1909, most people wondered what there could be away out in Utah, near the Arizona line, to arouse enthusiasm. In 1915 a scout for a tourist agency explored the Canyon when seeking a route from the Grand Canyon to the Yellowstone. In 1916 a company of railroad men, headed by the Governor of Utah, visited the Canyon valley, which is about the size of the Yosemite. Then visitors in numbers began to come. In 1919, when the author made his first visit to the canyon cut by the Virgin River down through 3000 feet of sandstone, the total number of those who had registered in the book kept for the purpose was less than one hundred!

But how the fame of the delectable valley—fringed with green, bordered on either side by rocks that rise in majesty to towering heights, rocks cut by intersecting canyons, carved into exquisite shapes, colored in a manner indescribable, narrowing gradually from a width of perhaps half a mile to one hundred feet, and finally even less—has spread over the country and to other lands! John Muir, after a night spent in camp outside the entrance, when "the sound of animals and the songs of birds coming from the canyon" was a symphony to his

ears, spoke of this with a deep emotion as "one of the beauty spots of earth."

Yet the clerk in charge at the Checking Station near the entrance tells of people who, after traveling long distances to the Park, object to the payment of the fifty cents admission fee, good for the entire season, and turn about without going into Paradise. "And one of them came from Chicago, too!" said the clerk.

What a change has taken place in the Park since 1919, when President Wilson made of the National Monument Zion National Park! The tent cottages have given way to hundreds of rustic cabins. The little dining room that accommodated a dozen has been succeeded by the Lodge. A campground has been opened, and this is used by hundreds of cars each week. The dirt road which went for a short distance beyond the tents has been succeeded by a capital automobile road to the Narrows, so that it is unnecessary to take to the trail until that beginning of some of the finest scenery in the Park is reached. The trails have been improved, and many more of them have been built. The best of them go along the river; the view of the river valley far below is exquisite. The West Rim trail looks out into another canyon, whose mysterious beauty beckons to closer acquaintance. A trail up a tributary canyon, from a point near the Checking Station, goes to the cliff dwellings and the petrified forest. The trail into the Narrows, where the walls come so close together, leads to a place where *algae,* growing profusely on the walls, add a new glory to the color of the rocks. "The Hanging Garden" is the name given to this spot, where ferns and columbines flourish; the moisture necessary for the plants seeps through the cliff.

Not only is the vegetation profuse in all parts of the Park, but there is a long growing season—from February to November. Another curious fact is that the changes

in the character of the vegetation are similar to the changes seen in traveling from Mexico to Canada. These changes are much more accentuated than in the mountains. Sometimes a difference such as may be caused by a variation of several thousand feet in altitude may be shown in a brief space; this is due to variations in sunshine and shadow.

These variations make views of the Canyon so different at various hours. But perhaps the choicest view of all comes after sunset, as the dusk is gathering. The memory of a ride on the running board of an automobile, from the Lodge to the Narrows, will bring keen pleasure to one traveler for months and years afterward. How amazingly rise the peaks and domes on either side! How they stand out against the sky! How effective is the purling of the river! Stars come out in splendor above The Great White Throne, that awesome monolith that dominates the Canyon for miles; they look like signal lights on the summit. The recess in the mountain from whose side waters weep rises splendid and aloof, yet its fascination cannot be resisted. On the heights, silhouetted against the sky, are the fir trees, the final achievement of the mountains in their heavenward reach. Now the road turns and twists, winding about the wall of a closing amphitheater, finding finally a passage through an unexpected aperture. Then it measures the circumference of still another amphitheater.

They are continually doing something at Zion to make the joys of visitors greater. The latest achievement is a road that begins near the Checking Station, reaches down Pine Creek canyon, then more than a mile through a wall of rock, and on to Mt. Carmel, twenty-four miles distant on the road directly south from Bryce Canyon. This engineering triumph makes available to tourists a route of tremendous grandeur; it will become famous as

Bryce Canyon, National Park, Utah

Cedar Breaks, Utah

Formations in Bryce Canyon, National Park, Utah

one of the world's most spectacular highways. When the work was begun it was estimated that the first section of eight miles from Zion westward would cost $1,250,000, while the remaining seventeen miles would require the expenditure of $427,000.

The engineer of the road said of it:

"From the Checking Station at the entrance to the Park, elevation 4100 feet, the road winds by a series of switchbacks along Pine Creek, until it reaches the base of the cliff, in a distance of four miles and at an elevation of 4886 feet."

How does such a road come? Those who ride over it wonder. There is no better way to answer the question than by visiting the workings during the course of construction, as the author was privileged to do. It was difficult to decide whether to admire more the compressed air drill and the other huge machines, or the patient tunnel laborers who worked in their shifts of eight hours each. They tried to sleep in the construction camp, but it was too hot. One man solved the difficulty by building a cot in the branches of a piñon tree near the canyon wall.

"It is an unpleasant place to be!" said one of the workmen. But unpleasantness is a state of mind, rather than a condition, as the wife of one of the men showed when she made her cabin in the hot construction camp a bower of beauty by growing a bed of flowers in front, placing sunflowers at the side, and training vines over a portico in the rear.

A mountain tunnel is always a wonder. But how great a marvel it is cannot be understood except by those who have trudged down the workings, watched the great machines as they bore into the rock, or the workmen as they take immense loads of debris to one of the frequent openings through the wall of the cliff which will reveal to the travelers the valley far below.

Before the road was completed, the only way out of Zion was back through Rockville, the Mormon village near the entrance to the Park, then to La Verkin and either north to Cedar City or southwest to Fredonia and Kanab. The former route joins at Anderson's Ranch, a veritable oasis in the desert, the Los Angeles highway which, a few miles on, passes through St. George, the heart of Utah's Dixie country, named because of its fertile fields and fruit orchards, famous also because of its nearness to Santa Clara Canyon, where excavations have disclosed many evidences of a prehistoric race, and to Cottonwood Canyon.

Both roads give an inspiring view of Hurricane Fault, called by geologists the greatest known fault. This break in the formation of the rock is responsible for added beauty and grandeur that fascinate all who behold.

This is a desolate country, but it is glorious in its desolation. "It is terrible!" some may say. Yet to many travelers the desert is a dream, a vista of delight. The very barrenness is an attraction; the vegetation, the sand, the purple mountains in the distance, the red cliffs so near at hand, the weird mirage, the silence. It is a mistake, however, to think this country is deserted. Those who have the idea should read Jaeger's "Denizens of the Desert," in which he tells of seeing in just such places road runners, pack rats, cactus wrens, lizards, tortoises, vinegaroons, as well as birds, reptiles, and insects.

And it is a country for adventure.

"Once I was going through here when my radiator went dry," said the author's companion. "I didn't know what to do. Then I saw a cow feeding. 'There must be water near,' I thought. I found a cow-trail, and followed this until the tracks spread out. This encouraged me: I knew that when cattle are in search of water they go along sedately until they are close to their goal. Then

they leave the trail and hurry toward it, each in his own way. So it was then; I came to water in less than a quarter of a mile."

A backward look shows the stately lines of the Zion Canyon formation. They loom up impressively, as if mighty cones and peaks had been lifted bodily from the bed of the Grand Canyon of the Colorado to be set down in this place. But how much more exquisite is the coloring!

Now the desert road ascends from a deep valley whose floor is cut into ribbons by all sorts of draws, each with its own grotesque formation. Soon it leads to the trunk of a petrified tree, the relic of some forest monster of ages long ago. What kind of country was this desert then? Or did the tree float there from the uplands?

This is in Arizona. Nine miles beyond is the remarkable spring in the desert by which the Mormons built a fortress, long known as Windsor Castle, for defence against the Indians. Since 1928 this has been preserved as the Pipe Springs National Monument, a memorial to pioneer western life. "Why the name?" a visitor asked. "Because Gunlock Bill Hamblin shot a pipe out of an Indian's mouth!" was the surprising response.

The water of the spring which flows from the base of the Vermilion Cliffs is conducted to two spacious pools before the fort in the shadow of two cottonwoods. This is "the only dependable water supply in the 62 miles from Hurricane, Utah, to Fredonia, Arizona." So valuable were the pools that, in 1863, Mormons were willing to give several lives in capturing them. The overflow goes to feed a pond near by to which come cattle from all over the Kaibab Reservation, where the Indians live and roam in the midst of desolation and beauty. To this region, in early days, came the marauding Navajos from the south, to steal the cattle and horses of those who lived at Windsor.

Chapter VIII

THROUGH THE KAIBAB FOREST

When they reach Cedar City passengers who have decided to depend on the automobiles of others, rather than take their own machines to Utah, may follow the route to Zion National Park, then go by the stupendous new road to Mt. Carmel, between the Dixie National Forest and the Kaibab National Forest. Along that road it is difficult to know whether to fix the eyes on the fascinating variety of scenes that are unfolded at every turn of the road, or on the Vermilion Cliffs, the majestic walls of highly colored rock that rise midway between the Paria River and Zion—a distance of some sixty miles —and are visible from both points and from most places between.

Mt. Carmel is on a branch of the Virgin River, but the road soon passes into Kanab Creek Canyon, where are strange cliffs of cross-bedded sandstone on either side. In these walls are curious caves. In most of them evidences have been discovered that they were the dwelling-place of a prehistoric people. One of the openings has been utilized for stock and tools by a farmer who lives within a few rods. In some of the side canyons are signs of cliff dwellings, while under an overhanging cliff the figure of a man speaks of a forgotten race. Once workmen who were quarrying in such a cliff broke into an old burial place, and found two mummies! And when, in 1911, Kanab built its reservoir, another old burial place was discovered.

Those who have passed through the desert regions to the south and west will appreciate the joy that must have come to these people of long ago, as they sought the shores of the creek. Powell's record of travel in 1870 told of his sojourn in a canyon eighteen miles above Kanab. On either side of the canyon was a group of lakes. "By the side of one of them I sit," he wrote, "the crystal water at my feet, at which I may drink at will."

How archaeologists and ethnologists, to say nothing of travelers who lay no claim to such distinction, have longed to sit and drink at will when in the uninhabited mesas and valleys west of Kanab Canyon! Lack of the necessary forage and water for pack animals has limited their movements in most trying fashion.

The old Mormon town of Kanab, the gateway through which one enters the plateau region of northwest Arizona, was built on the site of some of the prehistoric habitations for which the neighborhood is famous. In early days the inhabitants were driven out several times by the Indians, but always they returned to their homes by the side of the creek that rises on the Paunsaugunt Plateau, flows for thirty miles through successive massive walls, and passes the Vermilion Cliffs, through Kanab Canyon, on to union with the Colorado, after many more picturesque miles between the Kanab Plateau and the Kaibab Forest.

In leaving Kanab the highway passes on the right a long row of some of the most remarkable Lombardy poplars in all Utah, before it greets Fredonia, the first town in Arizona, a veritable oasis in the desert.

"I want to get out of here!" said a sojourner in just such country as that to the south of Fredonia. "Everything has thorns here in the desert. The trees have

thorns, the brush we gather for firewood has thorns, and even the toads have thorns!"

Yet there is something in this region that makes of thorns a minor matter—the riot of color revealed to those who climb the seven miles to the height of the ridge just within the bounds of the Kaibab Forest, and look back to the desert, to the Vermilion Cliffs, and beyond to Bryan Head, the high point of Dixie Forest, near Cedar Breaks, then to the high plateau of the Powell Forest.

"You have a sweep of 200 miles before you," said Superintendent Mann of the Kaibab. "Did you ever see anything like the variety of coloring spread out? Below are the cedars; then comes the dun of the desert, dull but far from lifeless, with a bit of green here and there, and beyond a fringe of red. Perhaps you will agree with me that this is one of the greatest views in all the desert country.

"We need a name for this. It is far more worthy the name 'The Painted Desert' than the country to which this has been given."

A suggestion was made promptly. "Then why not call it 'The Artist's Palette'? See how lavishly the color is spilled out. And that rugged pinnacle yonder might be the artist's thumb, reaching up through the palette where the color runs riot."

The man who had asked for a name said nothing for a week. But he had been thinking. Then the two men were retracing their steps, and were again looking down on the vision below and beyond.

"That's the name!" came the unexpected word. "It will go on the Forest map and will be placarded on signs by the side of this road of vision."

When the back is turned on the Artist's Palette the Kaibab Forest stretches out invitingly toward the North

Rim of the Grand Canyon. This king of the Forests, sixty miles long by thirty miles wide, bounded on three sides by the Colorado and its tributary canyons, has been called "a fit, cathedral-like vestibule to the Grand Canyon."

But this vestibule is not to be passed through hastily. What if the Grand Canyon does beckon? Let it wait! Pause here at least for two or three days, that the wonder of the blue spruce, the white and Douglas fir, and the Western yellow pine may be revealed! There is no undergrowth; when Theodore Roosevelt visited this forest, in 1913, he found he was able to ride with reasonable speed here and there under the trees, far from trails.

At every turn the observer wonders if he is not in some mighty park. Most unexpectedly deer browse beneath the trees. Groves of the aspen whose restless leaves have given to the tree the descriptive name "quaking" come just where they are most effective in completing the picture of silent majesty.

Those who are fortunate may see upon one of some yellow pines a specimen of the timid white tailed squirrel, a species peculiar to the Kaibab. The dark gray or brown of the large body is in such contrast with the white, filmy tail. Those who do not see the squirrels in the open forest may study them at Jacob Lake filling station where, behind the curious buildings of lava rock, is an enclosure where two squirrels live in the trees.

"It seems too bad to keep them in captivity," one visitor remarked. But it was satisfactorily explained that their presence in the enclosure gave needed opportunity to study their habits and their diet, thus providing the knowledge necessary to preserve the species from extinction.

The trees in which the squirrels make their surprising

leaps that carry them in a few moments to retreats far distant are, many of them, but from 30 to 150 years old. Yet now and then come sturdy specimens two or three centuries old.

"What happened to the forest that preceded the young trees?" the Superintendent was asked.

"Probably insects and fires combined to destroy it," came the reply. "Just enough was left for seed. You see, we can always trust Nature to strike the needed balance and make provision for the restoration of beauty."

That remark brought to mind John Muir's eloquent message, written when he might have had in mind the Kaibab Forest:

"The forests of America, however slighted by man, must have been a great delight to God, for they were the best he ever planted. The whole continent was a garden, and from the beginning it seemed to be favored above all the other wild parks and gardens of the globe. To prepare the ground, it was rolled and sifted in seas with infinite loving deliberation and forethought, lifted into the light, submerged and warmed over and over again, pressed and crumpled into folds and ridges, subsoiled with volcanic fires, ploughed and ground and sculptured into scenery and soil with glaciers and rivers, in every feature, growing and changing from beauty to beauty, higher and higher. And in the fulness of time it was planted in groves, and belts, and broad, exuberant, mantling forests, with the largest, most varied, most fruitful and most beautiful trees in the world. Bright seas made the borders with warm embroidery and icebergs; gray deserts were outspread in the middle of it; mossy tundras in the north, savannahs in the south, and blooming prairies and parks; while lakes and rivers shone through all the vast forests and openings, and

happy birds and beasts gave delightful animation. Everywhere, everywhere, over all the blessed continent, there were beauty and melody, and kindly, wholesome, fruitful abundance."

The Kaibab is a forest almost without water. With one exception, there is no moisture on the high plateau, save sinkholes in the limestone. Usually water disappears through these sinks, but sometimes the hole in the bottom sinkhole is plugged in a mysterious manner, and the places are filled with a life-giving supply. To them, from far and near, come cattle and deer alike, as well as many smaller animals.

"When the weather is very dry, many of the waterholes dry up," came the explanation of the Man of the Forest. "At such times all live stock must change locations to places where there is water left. Not long ago, in one of these seasons of drouth, I spent a night at a waterhole which was still offering relief to all comers. I wanted to see what would happen that night. You know everything wild and most things tame come to water in the night. That night two bands of wild horses came in. Probably they smelled me; at any rate they snorted and went away without drinking. Horses are the wildest things on the range. Deer came in singly and in groups; at one time when I moved, bucks scattered in all directions, probably fifty of them. Toward morning, coyotes came in and at one time when the howls started there seemed to be coyotes on the right, on the left, behind, and everywhere. As morning broke there were hundreds of mourning doves and some blue pigeons. Upon looking in the mud along the shore, it showed that there had been cattle there, and porcupine, and squirrels."

Then Ranger Park followed with his animal story. "With a companion I was riding through a thick grove,

parting the branches as we went," he began. "This was in a forest farther north where I was employed. When we came to a small open space we were electrified by the sight of three bears that appeared suddenly close to me. My horse leaped to get out of the way, stumbled on a log, and pinned me underneath him. Not three feet away one of the bears sat on his haunches, frothing at the mouth. My little dog was pursued by the other bears. The third bear, attracted by the noise, joined the game. This gave me time to extricate myself. And none too soon, for the dog came back, bringing the bears with him. But I had a good start, and made my escape."

More hair-raising stories were told that night about the camp fire at V. T. Ranch, the delightful stopping place that takes its name from an outfit in the old cattle days. One tale was of mountain lions, which have been hunted for many years for the protection of the cattle and the deer. Uncle Jimmy Owens, friend of Roosevelt, who lives near the Kaibab, was one of the greatest of these hunters. Reference to such hunters was made by a visitor at the camp fire. "I'm not a cow man," he said. "I'm a lion man. There are three lion men in the forest; Marsh Adams is one, and I am the other two. Once when I was trying to rope a lion, he took straight for the edge of the Grand Canyon. He went over, and I went after him on my horse. . . . Now if anybody has any questions to ask, let him ask them now."

The men of the V. T. ranch had their experience with mountain lions, though here in De Motte Park, as they call the meadow where the hotel is located, they were seventeen miles from the Grand Canyon. So they were not in grave danger of following in the footsteps of the lion hunter who, when he was taken to task for his tall story, perpetrated an awful pun: "Well, didn't I tell you I was a lying hunter?"

The V. T. meadow is typical of such wide open spaces in the Kaibab. This particular meadow is 8800 feet in elevation, and is several square miles in area. The trees halt at the edge just as if they had been cut back to make room for the deer to come out to browse.

And in what numbers they come! There was laughter at the ranch when a visitor asked, "Do you suppose I'll see a deer this evening?" "See a deer!" was the reply. "Come over to the eastern windows that overlook the meadow. Let your visit be at sundown. Then you will see the deer come from the forest to browse on the rich grass, by tens, by scores, by hundreds. Frequently we count four or five hundred deer feeding within gunshot of the dining room. But no gun is fired, no dogs are allowed to frighten the timid animals, and no curious visitor is permitted to walk toward them lest they scamper away into the shadows."

The deer have been quite a problem in the Kaibab. When Roosevelt paid his visit there were but about 3000 in the herd, but protection has resulted in increase to 30,000. This vast herd remains within the forest and the adjoining North Rim portion of the Grand Canyon National Park, because of the Kaibab's strangely isolated position.

A new problem was created by the increase of the deer: there was danger that there be too little forage. So it was decided to thin out the herd in the forest. Trapping was attempted, but this plan was unsuccessful. Next, there was a great deer drive, designed to collect five or six thousand of the surplus male deer, that they might be transferred to the South Rim of the Canyon. Navaho Indians were invited to take part in the drive, which was to cover seventy-five square miles.

But to the surprise of everyone interested, the drive—this was begun on December 12, 1924, and continued for

three days—was a dismal failure. The drivers were unable to keep the deer to their appointed path. Two animals were driven into a canyon tributary to the Grand Canyon, instead of the thousands for which plans had been made! "It might be possible, with a thousand men properly equipped, to shift the deer from one portion of the range to another," declared one who was in charge. "The attempt is not likely to be repeated."

Another plan to reduce the herd has been attempted. Hunting, strickly supervised, is permitted. "This is the only place in the world where there is such supervised hunting," declares one forest official. The Navajos take part in some of these hunts, and they rejoice. For once the Kaibab was their resort for the fall harvest feasts, and for hunting. But the day came when they believed that the Great Spirit was offended at them, so that they were forbidden to resort to the old hunting grounds. Now, however, they are permitted to shoot the deer, and they declare that the Great Spirit has smiled on them once more.

They are trying a third plan to lessen the number of deer, for the benefit of the parks in the cities and the game reservations that desire to grow a herd of their own. Fawns are caught when a few days old, and are kept until they are somewhat domesticated. Then they can be crated and shipped to their destination. A better plan is to catch the fawns when they are older, though this is much more difficult.

"Let me show you the place where we are making our biggest attempt to lay hold of the fawns," Supervisor Mann said. So he led the way to Big Spring, near the western boundary of the forest. This is the location of a Ranger Station, whose buildings are perched under a cliff of limestone crowning sandstone. From the sandstone a great spring gushes out, to make the only

running stream in the Kaibab. Even this stream sinks in the earth before it has had a chance to travel far. In days of long ago cliff dwellers sought the spring; evidence of their occupation of caves in the sandstone has been found. The deer, likewise, have been attracted by the water; they pass this way as they go from their summer to their winter feeding grounds. Their coming is the signal for the men of the forest to get busy. In the course of years they have devised a trap, baited with the water from the spring. A bit of ground through which the stream passes has been set apart by means of a high wire fence. Through open gates deer with their fawns are apt to pass in October, seeking water. The gates, controlled by wires, are closed by a ranger who is concealed by a blind. When the does seek to return to the forest, the gates are opened long enough for them to pass through, but are closed before the fawns —then three or four months old—can pass.

Sometimes the young deer are trapped early in the summer by the use of specially trained dogs, which run them down and hold them with their forepaws until the hunters come up. They are then taken to ranches where they are fed on diluted cow's milk, hay, and browse, until they are three months old, when they are ready for shipment.

In the fall of 1929 for the first time fawns were taken across the Canyon in an airplane, the seats having been removed for the crates in which the little animals had been packed. So, instead of a trip of 240 miles, by truck, requiring from 24 to 30 hours, the time of transit from Pipe Springs to Grand Canyon Village was but three hours. In this journey 33 miles were covered by truck.

The trapped infants rush here and there for several hours, fighting the fence. Sometimes they throw themselves against the wire so hard that necks are broken. But when they have become accustomed to the enclosure,

they seek a shelter of boughs in the corner. When they are within this, a curtain is dropped by wire, and they cannot return to the open. Little by little they are tempted to go on from pen to smaller pen, the gates behind them being closed by wire. At length they pass through an alley into the final pen, from which they enter crates. Then they are taken by night to Marysvale, for shipment to the parks whose managers are ready to pay $25 to $30 for each fawn.

But better even than the fascinating excursion to the deer trap are other tours to Kaibab beauty spots. These drives are worth taking, in spite of the disgruntled query of one camper:

"What is the use going farther? If you've been thirty feet in the Kaibab Forest, you've seen it all!"

That man would not have been in sympathy with the plan of the Forest Service to protect the trees, and to limit the cutting of them to those that are ripe for use. These ripe trees are indicated carefully by the authorities. The man appointed to pick out the permitted trees has a special ax, bearing the letters U. S.; with this he brands each tree. When cutting such a tree the timber concessionaire must leave the stump, bearing the brand, as his warrant for the destruction. "These branding axes must be guarded with extreme care," said the guide in the forest who explained these things. One day, after marking trees, a weary forester came to headquarters. "Where is your ax?" he was asked. "I was too tired to bring it in," was the reply. "Very well, then; you lose your job," was the verdict, from which there was no appeal.

The rangers who retain their jobs long learn to sympathize with John Muir's feelings when he wrote:

"Any fool can destroy trees. They cannot run away, and if they could, they would still be destroyed—chased

and hunted down as long as fun or a dollar could be got out of their bark hides, branching horns, or magnificent bole backbones. Few that fell trees plant them; nor would planting avail much towards getting back anything like the noble primeval forests. During a man's life only saplings can be grown, in the place of the old trees—tens of centuries old—that have been destroyed. . . . Through all the long centuries since Christ's time, and long before that, God has cared for these trees, saved them from drought, disease, avalanche, and a thousand straining, leveling tempests and floods, but he cannot save them from fools."

"In my country," said our companion from Switzerland, as he looked on the glorious trees of the Kaibab, "a man must get a government permit to cut a tree even on his own property, and usually he cannot get this unless he agrees to plant a specified number of trees in place of every tree cut."

One of the finest excursions under the unspoiled trees of the Kaibab is off to the left of the main road, to the edge of the forest, where the outlook is over to the Paria Plateau, edged by the Vermilion Cliffs. Beyond the cliffs the mysterious Marble Canyon of the Colorado, fringed with trees, may be seen.

"It is 30 miles to the canyon," was the answer to an unspoken question. "Looks as if you could run to it and cross it very easily, doesn't it? But when you get there, you will look down 2000 feet into the depths."

There is a road around the foot of the Vermilion Cliffs, to Lee's Ferry, the location of the new bridge across the Colorado River which was not completed in time to save the lives of two men, claimed by the river in the summer of 1928 as they sought to operate the ferry in time of high water. This bridge, and the ap-

proach to it, enable the tourist to save hundreds of miles in crossing from Rim to Rim of the Canyon.

"See the old rock buildings far below us in the valley?" asked the Forester. "They are relics of the days of the cattle industry in the valley, before the herds were taken to Mexico. 'House Rock Valley,' this is called, from the ranch house built of stone from prehistoric ruins. Wonder why they did not call it Rock House Valley?"

Jimmy Owens, after he retired from hunting mountain lions, went to House Rock Valley to form his herd of buffalo which is now the property of the State of Arizona.

"Jimmy is a great character," the Ranger rambled on. "He never will speak evil of anyone. Once an acquaintance told him of a man who had injured him greatly. 'Now he'll say something sharp!' thought the acquaintance. But the only remark Jimmy made was: 'Well, he's a pretty good fellow, isn't he?"

Another rare view of the country is offered from a point where the Navaho Mountain is seen plainly, near the corner of four states, not far from the Rainbow Bridge. In the foreground are the Cock's Combs, as the cowboys called a series of five great rock ridges which were dropped from the plateau beyond in some mighty convulsion. The plateau is 4000 feet nearer than the point from which the view is taken!

"But you are impatient for a view of the great Canyon, aren't you?" the rambler's companion asked. "All right! Let's go to two places in the serried North Rim where you can look off into empty space—the space of which Captain John Hance, Roosevelt's guide, told his story. You have heard it?

" 'Once I woke up in the morning to find the canyon full of snow,' he began. 'I got my skis and tried to cross,

Zion Canyon, from East Rim, Zion National Park

The Great White Throne, Zion National Park

but when I was out some distance, I found that the snow was only mist.'

" 'What did you do?' one of his listeners asked.

" 'O, I just waited until the sun came out. The mist dropped us down on the Kaibab Plateau, and we were all right.' "

The boundary between the Kaibab Forest and the Grand Canyon National Park is now some distance from the North Rim. The rambler should have this in mind as he approaches the canyon.

The best place to see the Canyon from the North Rim is at Cape Final and Cape Royal, at the extreme end of the Walhalla Plateau, or Greenland, as it is called sometimes. Yet it is not necessary to go to the capes to look down into the great gorge; all along the road which leads from end to end of the narrow plateau are superb visions of the depths, the formations that rise from the bottom, to the San Francisco Peaks far to the south.

The fact that the North Rim of the Canyon has a madly varied boundary line is due in part to the greater rainfall here where the Rim is 1000 feet higher than the South Rim. Once this boundary between the rims was filled with solid limestone, but this has been worn away gradually. Even a hasty study of the belts of different formations in the rocks of the two faces shows the kinship of the rims.

Opportunity for a study of these colorful belts is presented at Point Sublime, which juts so far out into the void that the Colorado River is disclosed far away toward the South Rim. To the left is a tributary canyon wall, whose majestic steeps are carved into fantastic shapes. A thousand feet below a rock plateau reaches out. On this plateau stunted trees are growing, for they are protected from the depredations of deer which have destroyed much of the vegetation on Point Sublime. To

the right another wall reaches out into the Canyon at an angle, as if it would meet the wall from the left. The dropped plateau is much like the cross bar of the letter E, the rest of the letter being formed by the walls to either side. The cliff on the right overhangs, and is supported by a series of buttresses about equidistant, separated by arched depressions in the wall which, likewise, are almost the same in size. The symmetry of design is characteristic of the canyon formation. Yet combined with the symmetry are so many variations that the eye never wearies of looking.

Beyond the ridge supported by the symmetrical columns, the Colorado makes majestic sweep to the Northwest, then to the South, about Powell Plateau. This plateau can be reached by a rough but entirely practicable road. This reaches to the edge of the plateau, which is separated from the mainland by Saddle Ridge, a long depression perhaps 1000 feet deep.

Not long ago it was possible only for the trail rider who knew the country to go to these glorious observatories on the North Rim. The first road from Fredonia across the Kaibab was not completed until so late in 1925 that no tourists used it until 1926. Of course there was a track before that time, but only the most hardy travelers dared to negotiate this. Yet the track was used by hundreds of automobiles. The first year of the new road, however, saw 3370 cars go that way. In 1927 the number increased fifty per cent, while 1928 and 1929 saw tremendous growth in the traffic. Whereas less than one thousand people stood on the North Rim of the Canyon in 1920, in 1930 there will be, in all probability, at least 30,000.

And most of the great caravan, after completing this journey across the desert and through the forest, will

appreciate the sentiments of the camper who said, with fervor perhaps greater than his accuracy:

"I've liked your canyon, and I've liked your deer, but, best of all, I think, is your Kibosh Forest."

The goal of all who approach the Grand Canyon from the North is the splendid hotel at Bright Angel Point, opened by the Union Pacific Railway in 1928, to accommodate sojourners on the North Rim, as well as those who go down the trail into the Canyon. The completion of this attractive hostelry marks an era in Grand Canyon development. The building is on the very brink of the chasm, and public rooms, as well as the observatory on the roof, give ample opportunity to look down into The Transept, and across to formations of brilliant red, first in regular strata, then in a wide belt that looks as if it were the face of a fresh quarry. Above this, there is more sandstone in regular strata, the green of the trees giving variety to the scene. To the left the temple formations seem almost as if they could be touched. The nearness of these to the observer is one of the advantages of the North Rim. Farther to the left Bright Angel Creek leads out between massive triumphs of erosion to the Colorado, far across in the depths of the Granite Gorge.

"Ordinarily I would not think of beautiful as a term to be applied to the Grand Canyon," said a companion who looked down from the hotel observatory. "Stupendous, yes; majestic, surely; awe-inspiring, always. But I was unwilling to say, 'How beautiful!' until I stood here at the full of the moon and looked off at this limited but so intimate vision."

Chapter IX

MAKING FRIENDS WITH THE GRAND CANYON

THE few days spent in studying the Canyon from the many points of vantage on the North Rim that have been made available with such ease, should be followed by a trip on a sure-footed mule down into the depths, across the Colorado, then up on the South Rim, where more rim work completes the study of this most revealing laboratory of Madam Nature.

While it is entirely possible for a good rider to complete the trip from rim to rim in a single day, it is far better to take two days for the journey. Why hurry when one more day will pay the traveler dividends in enjoyment, satisfaction, and food for the memory for years to come? Those who wish to hurry may take an airplane. The struggle against the air currents above the canyon adds interest to the passage, but this is made so quickly that the visitor has only a fleeting glimpse of the marvels spread out far below.

But the mule and the trail are necessary for intimate study, while the guide can give so much more information than the pilot of an airplane who must be on his mettle every moment of the brief passage from rim to rim.

The canyon mule is an institution. He is not just an ordinary mule. He comes from the Kansas City market, but he must submit to training as a pack animal, and in the hands of a guide, before he is promoted to the ranks

of the animals to which travelers are asked to trust themselves.

These mules seem to the guides to have a personality. They talk to their mules, and they talk to them with startling familiarity, making of them individuals rather than mere members of the mule tribe.

"Boys, I can't stand this!" The agonized message seemed to come from a pack mule against whose side a guide had placed his boot, as he struggled to lace still tighter the girth that held in place the pack on the mule's back. In spite of themselves, the little company on the North Rim looked in surprise at the animal, before they realized that a guide had used his gift of ventriloquism that the mule might voice his protest.

As the trail party was starting for the first plunge downward, the guide very gravely introduced the mules to the riders. "This is Spark Plug . . . You have Scotty . . . And let me make you acquainted with Coon!" The introduction seemed so much a matter of course that one of the party, the genial man from Switzerland, responded, "My name's Kaufman!" Coon seemed to understand!

The wonderful trail opened in 1928 down the steep declivity, through the Hanging Gardens, is a masterpiece of canyon engineering. And the mule which carries the traveler over the trail is also a masterpiece. At first there may be a little trepidation on the part of the rider, but as time passes he realizes that he need pay no attention to the zigzags before him, but can let the beast take the responsibility, while he looks up, and back, across, and down. Sometimes he may be startled as he sees the mule's head and shoulders stretch out over the abyss, but the realization comes to him that this approach to the precipice is necessary if he would travel safely.

This new trail leads to Roaring Springs, a series of

four or more springs that gush out from the rocky wall across the side canyon down which the way leads, hundreds of feet above the trail. The water tumbles down the terrace formations to unite in the creek which is one of the chief sources of Bright Angel Creek.

At the Springs is an ideal place for eating lunch on the first day of the trip. The sound of the water, the rustle of the leaves overhead, the distant view of the region to be traversed during the afternoon, the North Rim towering overhead, all are entrancing parts of the noonday picture.

There was unexpected company at the Springs. A family party had come down from the North Rim, planning to return from this point. All were weary, yet so sedate, except the irrepressible twelve-year-old boy. He rushed with his lunch to the cliff side, yards from the others. Soon his voice was heard:

"Here's an egg, mother! What shall I do with it?"

"Break it on the cliff at your side."

"No, that isn't hard enough!"

So he sought his older brother and cracked the egg on that brother's devoted head.

The brother started to exclaim, but the words he spoke were not those he had intended.

For the egg was soft!

That was a good time to leave, so the party bound for the South Rim continued to pick their way down the Bright Angel Creek, past the side canyon on the left down which comes the main branch of the creek, and on to the amphitheater on the right where a short detour leads to Ribbon Falls, the fairy-like waterfall that comes down from the cliffs that close the amphitheater at the rear. An easy climb takes those who have left their mules to the back of the falls. Then the temptation comes to throw oneself down at full length on the grassy

covering of a great rock. But a slight change in the wind drenches with spray from the falling water the overtrustful seeker of his ease.

Roused in this manner, the sprinkled tourist rises for fuller investigation. He finds he is standing on Altar Rock, a curious moss-covered formation which has been the growth of untold centuries from the secretions left by the waters of the falls.

"Wish you had a few hours to spare," said the guide, before this attractive spot was left behind. "I would like to take you up over the precipice down which the water falls, to a series of storerooms and cave dwellings, and, near by, the Upper Falls, which are even finer than those we now behold."

The four miles of the Granite Box Canyon of Bright Angel Creek which follow cannot be described. They must be seen. The trail winds along the creek, turning, twisting, crossing the water here and there, through grandeur and glory, past side canyons that whisper of mysteries within, under the shadow of walls a thousand feet high. Think of riding through the Royal Gorge of Colorado or through Kicking Horse Canyon in Canada before the railroads came! But this is better than that could have been.

"Are you hungry?" asked the guide. "Let me get you a lemon." And he reached for the fruit of the prickly pear cactus. After cutting away the skin—a difficult feat because of the spines—he offered the pulp, which looks not unlike a peeled cucumber and tastes something like a mild lemon.

The lower portion of the Bright Angel Canyon, where the cactus fruit was eaten, was traversed by Powell and his fellow explorers, in search of timber from which to make new oars for their boats. Several miles from the mouth of the creek they found a huge pine log, which

had floated down from the plateau. They stopped to wonder at the marks of scourging it had received in the process of passing over many cataracts and falls. Then they rolled it on skids, and began to saw out the necessary oars.

Not far from the point where the log was discovered, Phantom Creek comes down through a tremendous gorge whose granite walls are more than one thousand feet high. The Indians who have left many relics in the canyon named the creek because of a mysterious light, phosphorescent perhaps, that played on the walls far up the canyon. This name has been borrowed by the series of lodges where those who cross the Canyon spent the night. Phantom Ranch this resting place is called. How welcome is its shade after hours have been spent in the saddle!

The traveler is surprised to find, here in the depths of the Canyon, every comfort he can ask, including shower baths, rest-giving beds, and invigorating food.

But perhaps the greatest of the delights of Phantom Ranch comes when, after dinner, the travelers relax under the trees, and talk over the day's experiences, or sing where the cliffs so close at hand toss back the echoes. The setting is at its best in the time of full moon, when the phantom light makes the cottonwoods glisten, while the weeping willows take on a filmy, lacy appearance, and the bounding walls of the narrow Canyon come into full splendor.

This is the fitting time for such a message as that of the guide who told of the Hopi legend that the first human beings reached the world by way of the Grand Canyon. "Their place of exit is somewhere in Bright Angel Canyon. They call it Sipapu, and they insist that all souls must seek the underworld through this gateway."

Then there is the legend of the Piute maiden who married a Navaho brave. With him she was unhappy, so she left for her home. The Navaho pursued her. The Great Spirit watched over her, and called "Check!" to her enemies when he made a great crack in the earth between them and their quarry. This is the origin of the Grand Canyon!

The stories were interspersed with the yodling of the Swiss mountaineer, whose swelling voice gave the finishing touch to the evening.

"Why do you Americans come to Switzerland?" the visitor said, as he paused in his yodling. "Think of what you have here! We like to see you over there. But why go to Europe when you have these wonders? Here is the place to spend a month's vacation. I have a friend in Pittsburgh who goes to Europe every summer. He says that there is nothing worth seeing west of Chicago. When I return East, I'll tell him about this. I'll do my best to make him understand what I have seen and what he should see. But who can describe this!"

Perhaps half a mile below Phantom Ranch, Bright Angel Creek enters the Colorado River, forming a quiet pool on the edge of the turbid river. There, in the cool of the evening, revelers on the new bridge were swimming. But how careful they were not to venture into the waters of danger!

The story of the discovery of this stream that thus joins the Colorado here was given by Powell. He spoke of coming to "a clear, beautiful creek, coming down through a gorgeous red canyon." To this he gave the name Bright Angel, in contrition for having named a tributary farther up the Colorado, "Dirty Devil." The latter stream is now known as Fremont River. He landed on the sand spit at the mouth, and spent the night there with his party, not far from the tablet erected to

the memory of a workman who lost his life during the erection of the sturdy but flimsy-looking foot-bridge which gave the first dependable communication across the Colorado at this point. Before this was built, horses sometimes swam the river, though many lives were lost in such crossings. In 1913 Roosevelt made his way over on a trolley ferry, close to the site of the station of the United States Geological Survey, where young men are studying the flow of the river and the amount of sediment carried in the water, for the purpose of knowing just what the stream can do to such projects as the proposed Boulder Dam.

In 1928 the pioneer bridge was succeeded by a sturdy, rigid steel structure, swung between the precipices, and immediately above the earlier bridge—so close to it, in fact, that the floor of the new bridge could be reached by those who stood below.

The new structure is also a suspension bridge. It is 440 feet long, 5 feet wide, and it is used for pack and saddle animals only. It is supported by eight one and one-half inch wire cables, 548 feet long and 500 feet between suspension points. The work was done by National Park Service forces at a cost of $37,000. The construction involved packing by mule-back from the South Rim to the bottom of the Grand Canyon of approximately 100 tons of steel, supplies and equipment.

What a place is the bridge to stand by moonlight, when no one is near! Far beneath are the swishing waters braved by Powell and his party, in spite of the forebodings of ill spoken by Indians who said that the Colorado disappeared in the earth. Their words could not be disproved, for no one had ever gone down through the long succession of canyons, 283 miles of them, in which the river falls 2350 feet!

As Powell, the one-armed leader—he had lost an arm

at the Battle of Shiloh—was about to enter on the most trying phase of his tour into the unknown, he wrote words which can be appreciated by one who stands on the bridge spanning the gulf:

"We are three quarters of a mile in the depths of the earth, and the great river shrinks into insignificance, as it dashes its angry waves against the walls of cliffs that rise to the world above. . . . We have an unknown distance yet to run; an unknown river yet to explore. What falls there are, we know not, what walls rise over the river, we know not. Ah, well! we may conjecture many things. The men talk as cheerfully as ever; jests are bandied about freely this morning, but to me the cheer is somber and the jests are ghastly."

And so he entered the unknown Canyon—which, by the way, geologists call "a young canyon," for it was begun only 50,000,000 years ago, "and in that time has cut through 6000 feet of rock. It has 2000 feet yet to go!"

For a short distance the trail from Phantom Ranch is at the top level of the "2000 feet yet to go." It leads up the river a piece, before it turns sharply to the right, across the suspension bridge that for seven years carried the traffic across the river.

"One mule at a time, and without riders!" the guide called.

So the riders crossed first, then watched the procession of mules. One of them crossed as if he enjoyed the passage; he trotted from one end to the other, and paid no attention to the sagging and bucking of the bridge which proved so disconcerting to some of those who preceded him. Another animal picked his steps daintily, taking twice the time to cross.

"I wonder if he is just plain lazy, or if he is thinking of the day so soon to come when he is to lose the thrill

the old bridge gives!" came the suggestion of a member of the party. "Perhaps the other mule is a happy-go-lucky animal, resolved to enjoy his pleasure while he can."

The first few hundred feet above the river provide some of the most spectacular bits of the Canyon crossing. How the trail rises in zigzags above the stream! Glances backward and downward to the river proved so fascinating that the file halted frequently. Opportunity was presented during these pauses for most effective yodling on the part of the Swiss member of the party; his eyes showed his satisfaction as the cliffs with rare generosity gave back the sounds they received. Even the noise made by the riveters on the new bridge became pleasing as this, too, reverberated in the deep recesses at the bottom of the Canyon. A sound different from that made by the yodler and that proceeding from the riveters was heard. For a moment this was puzzling, until the guide pointed to the sky. Two airplanes were crossing the Canyon!

Then came the Tonto Plateau, with its rocks and desert-like vegetation, including the goose apple which the Indians beat when it is ripe. They say that the taste of the resultant paste is something like that of the banana.

Here and there on the plateau are rocks that bear the footprints of animals impressed on them when the Canyon was young.

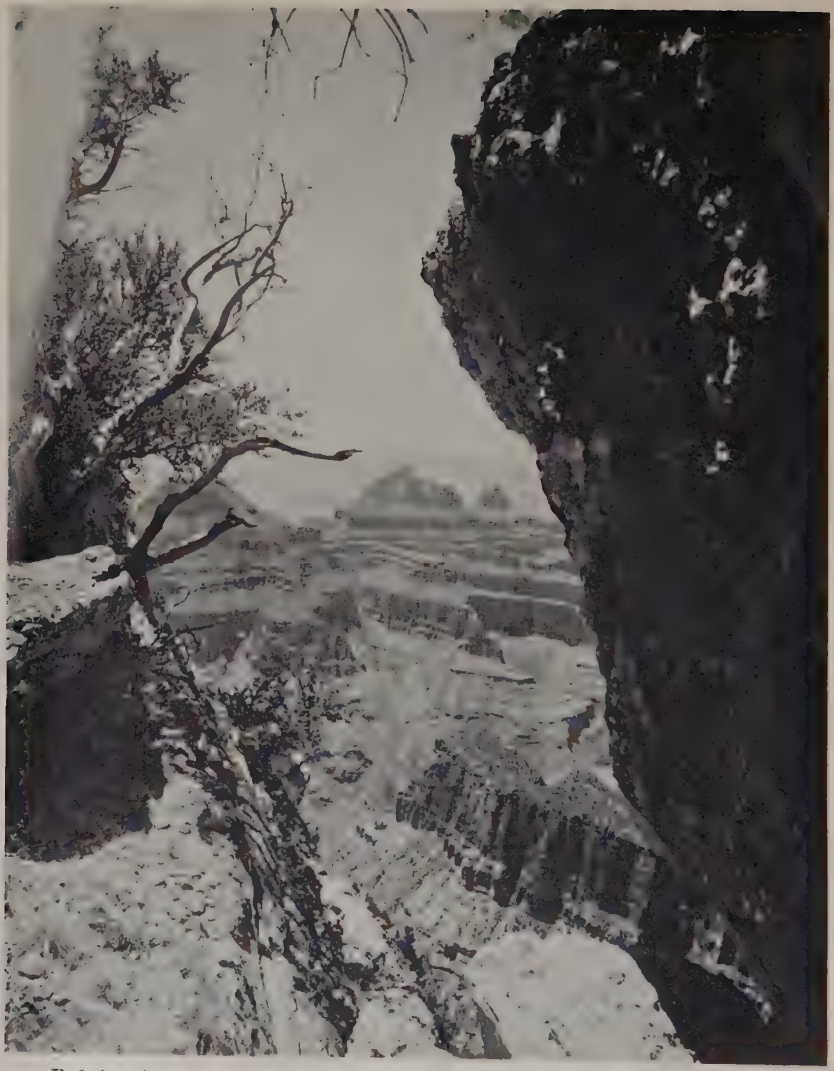
"If you go to the Hermit Trail, over to your right, you will find many more of the rocks," said the guide. "These footprints were impressed when the soil was soft, and to-day they are as plain as the track of a rabbit in the snow."

"How old do you suppose they are?" the Swiss asked.

"Well, they are more than 1000 feet below the rim,"

A Hunter's Camp in the Kaibab National Forest, Arizona

Camping in the Kaibab National Forest



Bright Angel Point, North Rim, Grand Canyon National Park

was the reply. "I can only ask you to read this bit written by some one who knows far more than I do: 'The great length of time required for the cutting away or erosion of the rock to form the deep Canyon, and the even larger time necessary for the original deposit of this great vertical mass of stone is, when translated into terms of years, if that were possible, so stupendous as to be almost beyond human comprehension."

The climb from the Tonto Plateau to the rim is a continual joy. The ingenuity and perseverance of the builders of the new Kaibab trail, which has made so much easier the descent into the Canyon, is never appreciated so much as when the mules turn and twist over the White Zigzags, rising rapidly toward the overshadowing rim that seems so close, yet is not to be reached until after another hour or two of toil.

Better make it two hours, for it is folly to hasten so fast that there can be no satisfying studies of the depths or up the Canyon, then down the Canyon. One of the finest things about this section of the new trail is that at many points the entire length of the Canyon as included in the bounds of the National Park may be studied.

Yaki Point, where the new trail tops out, is more than three miles east of the Santa Fe's palatial El Tovar, which has done for tourists on the South Rim what the Union Pacific's new hotel on the North Rim is to do for visitors there. The presence of these two caravanseries makes comfortable and delightful approach to the Canyon either from the north or from the south. And it is only a few years since the only provision for entertainment on either rim was the primitive hotel near the brink which still stands, locked and barred, some miles east of Yaki Point. The sole approach to this hotel was by rough wagon road from Flagstaff.

What wonderful days—and nights, too—may be spent

in studying the Canyon from the South Rim! How the coloring changes with the dawn, the coming of the noon, the setting of the sun! After a study of these changes during many days, the visitor will be able to join with Henry Van Dyke in his apostrophe to the Canyon:

"What makes the lingering night so cling to thee?
Thou vast, profound, primeval hiding-place
Of ancient secrets,—gray and ghostly gulf
Cleft in the green of this high parent land,
And crowded in the dark with granite forms!
Art thou a grave, a prison, or a shrine?

"A stillness deeper than the dearth of sound
Broods over thee; a living silence breathes
Perpetual incense from thy dim abyss.
The morning stars that sang above the bower
Of Eden, passing over thee, are dumb
With trembling bright amazement; and the Dawn
Slides through the glimmering pines with naked feet,
Her hand upon her lips, to look on thee.
She peers into thy depths with silent prayer
For light, more light, to part thy purple veil.
O Earth, swift-rolling Earth, reveal, reveal,
Turn to the East, and show upon thy breast
The mightiest marvel in the realm of Time!

" 'Tis done—the morning miracle of light,—
The resurrection of the world of hues
That dim with dark, and daily rise again
With every rising of the splendid Sun!
Be still, my heart! Now Nature holds her breath
To see the vital flood of radiance leap
Across the chasm; and crest the farthest rim
Of alabaster with a glistening white

Rampart of pearl; and flowing down by walls
Of changeful opal, deepen into gold
Of topaz, rosy gold of tourmaline,
Crimson of garnet, green and grey of jade,
Purple of amethyst, and ruby red,
Beryl, and sard, and royal porphyry;
Until the cataract of color breaks
Upon the blackness of the granite floor."

When the visitor has studied the Canyon long enough to realize that he cannot analyze its claims or explain its tremendous power over him, he is ready for his final tour along the Rim. To the west the highway keeps close to the brink for many miles. The authorities are always planning something new in this direction. For instance, a road is to be built to Havasu Canyon, perhaps fifty miles to the west. This gorge, tributary to the Grand Canyon, provides a spectacle with which all should be familiar.

On the return from the western trip along the rim, let a study be made of the memorial to John Wesley Powell. How much better this is than the memorial advocated by a traveler: "Let the cliff in some prominent portion be carved as Borglum began to carve the mountain near Atlanta." But would not Powell have been the foremost among those to plead against any such desecration of the Canyon?

Not far from the Powell Memorial is the public camp ground. The central lodge, opened in 1926, is a marvel, while the cottages, in each of which three people may find accommodation, are rented for a nominal price. There are forty of these cottages, and they are so much in demand that those who come after three o'clock in the afternoon are apt to find them all occupied.

Close to the camp ground a campfire is built every

evening, and there the people throng to listen to some park Ranger tell of the wonders of the canyon country—its history, its geology, its fauna and flora. The interested company, seated on benches before the great fire, is a study. What a picturesque group they are! Men and women touch hands for a little while who have come from Oregon or Tennessee, from Pennsylvania, Illinois, or Maine. The extent of automobile touring cannot be appreciated without hearing the people at the camp fire exchange experiences, both before and after the lecture. Here is an army captain, with his wife, on the way from an Eastern assignment to a post in Texas. Already they have been seen at a similar camp fire in Yellowstone Park. From there they went down through Colorado to Mesa Verde Park, on their way to the Grand Canyon. . . . Near them sits a professor from a Kansas university who, with his family, is forgetting all worry in a swing around the circle which is to include Yosemite, Mount Rainier and Glacier Park. . . . A hardware dealer from Pittsburgh asks for information about the road to Zion Park. "You say I must go around through California and Nevada, then into Utah? Seven hundred miles to go into a country which begins only twelve miles yonder on the northern horizon! Well, what of it? I'm out for a good time, and why should I worry about a few hundred miles? . . . A carpenter from Los Angeles is on his way to fresh fields in the East. "But what's the hurry?" he asks. "Isn't this better than rushing on too fast?" . . . "This is our third visit to the Canyon," is the contribution of an Illinois tradesman to the experience exchange, "and we're coming again next year!" . . . "I don't blame you," said a surgeon of national reputation whose skill with the scalpel is helped, not hindered, by the manipulation of the steering wheel. "This is my fourth summer in the car," he said, "and

look for us again next year." . . . A printer from Glendale, California, had one week's vacation. "Grand Canyon and the Petrified Forest is my program," he said. . . . Next is a man from the staff of the postoffice at Fresno, California; he, too, has driven his car to Arizona's wonderland. . . . An electrician from Maine found work a bit slow, so he is on his way to the coast by the southern route; the return will be made by Glacier Park, Yellowstone Park, and the Black Hills. . . . A draughtsman from Chicago tells of his adventures on the road, and of his belief that he has found the best way to take his family for a vacation trip.

To-morrow night there will be an entirely different set of tourists at the campfire. The others will have passed on to the west, or perhaps to the east, where they can look from Yavapai Point, through the great plate glass window of the museum, on a limited section of the Canyon where they gain an intensive view quite different from any other. Here, too, they can study the aluminum model of a five mile section of the Canyon, made under the direction of the United States Geological Survey, and the miniature canyon wall, built of small stones taken from the various formations, and illustrating the manner of their imposition on other formations and strata.

On now to Grand View, where a noble vista opens out suddenly as the traveler comes to the Rim through the Forest, and then to Navaho Point, with its own peculiar canyon outlook, and the distant view of the Painted Desert, whose vivid colors are like, yet unlike, those of the depths below. This is a land of enticement that loses itself on the horizon far, far away.

But this is not all. A little farther—140 miles from Grand Canyon village—and Lee's Ferry shows the new highway bridge, which was built by Federal and State funds at a cost of about $285,000. It is a three-hinged

structural steel arch. The total length is 833 feet, the main span being 618 feet from center to center. The roadway of the bridge is about 467 feet above the mean low water, making this, it is said, the highest highway bridge in the world. Still a little farther, near the line between Utah and Arizona, is the Crossing of the Fathers, where, in 1776, Escalante and his party crossed, the first white men to enter Utah.

This later Spaniard was more successful than Coronado who, in 1540, sent Don Garcia Lopez de Cardenas with twelve men to look at the river on whose banks dwelt people "with very large bodies." After twenty days' travel, "they came"—according to the Narrative of Castañeda—"to the banks of a river that seemed to be more than 3 or 4 leagues in an air line across to the bank of the stream. . . . They spent three days on the bank, looking for a passage down to the river, which looked from above as if the water was 6 feet across, although the Indians said it was half a league wide. It was impossible to descend. After three days Captain Meljoca and one Juan Galeras and another captain, who were the three lightest and most agile men, made an attempt to go down at the least difficult place, and went down until those who were above were unable to keep sight of them. They returned about 4 o'clock in the afternoon, not having succeeded in reaching the bottom on account of the great difficulty which they found, because what seemed to be easy from above, was not so but instead very hard and difficult. . . . Those who stayed above had estimated that some huge rocks on the side of the cliff seemed to be about as tall as a man, but those who went down swore that when they reached those rocks they were bigger than the great houses of Seville."

Some day there will be transportation to other won-

ders, yet farther up stream—the glorious Rainbow Bridge National Monument, discovered in 1905. This spans Bridge Canyon, which leads from Navaho Mountain to the Colorado River. Perhaps it means little to say that the bridge is 309 feet high, and 278 feet from pier to pier. But the statement means much more that the entire Capitol at Washington, including the Dome, could be placed within the arch.

But even this wonder is surpassed, many think, by three other natural bridges in the desert country south of the Colorado, perhaps one hundred miles to the northeast. The Edwin, the Carolyn, and the Augusta Bridges are close together. The journey to them is difficult, but the day is coming when those who seek the Grand Canyon will pass on to these sandstone wonders in the vast open country where for long years the Indians were the only visitors.

Chapter X

IN THE ROMANTIC OLD KINGDOM OF NEW MEXICO

"Let's forget about New Mexico! We've seen all that is really worth while in the Rocky Mountain country when we come to the southern line of Colorado!"

It is surprising how many people are ready to agree with the thoughtless suggestion of the traveler who would have ended his study of the Rocky Mountain Wonderland without extending his exploration into the Kingdom of New Mexico, as it was called by Don Juan de Oñate in 1598, when, at the Pueblo of San Juan, he asserted the authority of New Spain over the surrounding territory.

"But the mountains lose many of their characteristics in this lower country!" the objection is made sometimes.

What characteristics do they lose? Altitude? What of Solitario Peak, 10,200 feet high, or Truchas Peak, at whose summit the instruments tell of 13,275 feet, or the neighboring Baldy Peak, 12,625 feet high, or Lake Peak, close to whose summit—12,380 feet aloft—there is a valley with walls almost precipitous where Santa Fe goes for the abundance of sparkling water which is only one of the multitude of that city's claims to fame.

Rugged canyons are not lacking. From the lake which gives to Lake Peak its name the Santa Fe River passes through a channel of its own cutting deep down between picturesque rock walls which extend for miles from the Sangre de Cristo mountains almost to New Mexico's

Capital. This is spoken of as one of the finest scenic drives in New Mexico.

And one of the best things about the canyon is that its grandeur may be studied with ease from the automobile which follows the road made by the United States Forest Service, to Monument Rock and beyond. Fortunate is the traveler who refuses to be stopped by the ending of the road, and picks his way on a sure-footed horse to the upper end of Santa Fe's lake.

Then there is the Rio Grande Canyon, a section of which covers most of the forty miles from Taos to San Juan Pueblo. To this access is easy by one of New Mexico's improved highways. Tourists rejoice that there have been many changes in the roads of this region since Governor Lane passed this way in October, 1852. Once he "left the carriage on account of the road." Again he said, "The road is of the very worst;" "Road infamous notwithstanding it has been used 250 years;" "The River road is the meanest and worst of all."

Surely the Governor restrained himself nobly when, in his first message to the territorial legislature he said, simply: "Your highways are in a bad condition."

But how the Governor appreciated the scenery along these memorable roads! Of the Canyon country he wrote:

"The Alpine landscapes on this trip are magnificent, especially from the mountain looking upon the Valley of Taos, surrounded by hoary mountains of every shape and hue and cut lengthwise by the Canyon of the Rio del Norte, varying, it is said, from 150 to 400 feet in depth. Taos Valley is some 15 miles from east to west, and perhaps 20 to 25 miles long, but the Canyon is about 150 miles long."

Or take the road which leads southwest from Santa Fe, with its abrupt descent of La Bajada Hill, where

some two thousand feet of elevation are conquered by a bewildering succession of winding, breath-taking switchbacks. Off to the left are the turquoise mines of Cerillos; down below is the valley of the Rio Grande; beyond is the Big Cut through which the highway passes, then the Sandia Mountains, with one peak reaching upward more than ten thousand feet. The journey should be extended through Albuquerque, New Mexico's largest city, with many claims to distinction, to Isleta, the pueblo where Indian ways of living are much as they were centuries ago; then on to the Tigeras Pass and Hell Canyon which cuts the Manzano Mountains and leads to the region of the Saline Pueblos, so named because they are among "the Accursed Lakes," survivals of a great salt lake which geologists say covered a large area east of the Manzano Mountains until its surplus waters were drained away down the Tigeras, Abo and Hell canyons. There are no rivers in the canyons to-day. But what a story these canyons tell of the mighty waters of some recent geological age!

The fascination of this country of the Saline Lakes may be imagined from the description given in an official document, long out of print, by Paul A. F. Walter. He told of the efforts of science and skill to reclaim this domain which, on a spring morning, after the rains, seems a veritable paradise. "In a sand storm dense enough to shroud the alkali lakes or during a blizzard that hides the massive mountains, it is a land with cruel fangs where man is heavily handicapped in battling against climatic vicissitudes." For centuries men have been attracted to this forbidding yet alluring country, "only to be beaten back again and again by relentless nature."

Here was the seat of what Charles F. Lummis called "The Cities that Were Forgotten:" Tigeras in the Man-

zano National Forest, "as charmingly located as a picture-book Swiss village"; Escabosa, far above the Tigeras Canyon; Chilili, where a modern town takes the place of a pueblo mentioned by Oñate in 1598, and abandoned about 1670; Quarai, where, in 1629, a Franciscan mission was built; Tabira, famous because of the legend that this was Coronado's vainly-sought Gran Quivira, the Fata Morgana which lured him into the wilderness. Still the belief persists in the legend that the gold and other treasure sought by Coronado are buried at Tabira. Many have hunted for the treasure. Of these the most famous was the blind Clara Corbyn, who entered a homestead on part of the site of Tabira, then tried in vain to secure funds necessary for her search, and finally died heart-broken, because of her failure. Fortunately the Museum of New Mexico secured title to the homestead. On this there are parts of the pueblo ruins, though most of them, as well as the mission church, are on the grounds of the Gran Quivira National Monument.

These cities of the Tiguas and Piros have been called "The Cities that Died of Fear." The Apaches attacked several of them, and in one instance the inhabitants were driven away by the enemy. A bit of vivid description in a forgotten official document pictures the sad event:

"Let the imagination revert to the past! Let it reconstruct the huge pyramid-house of red sandstone, the roofs thronged with a people whose culture is rooted in the dim past. . . . Watch the procession, led by the somberly clad Franciscan padre, attended by acolytes, followed by dark-skinned warriors and gaily clad squaws, the latter carrying their papooses on their backs, all wending their way to the church. . . . As the sun crosses the meridian, keep your eyes upon the kiva. Observe how, out of the kiva of the summer people and that of the winter people emerge the men in their ceremonial

gorgeousness, to fling themselves in abandon into one of those wild, throbbing dances into which they pour their hopes and prayers, a poetic rite that was the heritage of generations of men who had seen visions and found a way to express them in rhythmic motion.

"Suddenly there is an outcry. Despite the watchfulness of the outposts on the hills, of the guards on the rooftops, the Apaches—the Red Death—had crept upon the community. There is a brief clash of conflict, the shriek of fury, the moan of the dying. Before the resistance is completely organized, the invaders are gone again, carrying with them women and children, leaving a trail of blood, driving off the animals in the fields, trampling down the crops. Then comes sunset, the night and moonlight. More romantic picture human eyes never beheld, as the fires blazed up, but above there is heard the mourning of those who have been bereft, the wail of the women for their dead."

In most instances, however, these cities of the Saline Lakes were depopulated because of fear of what might happen if the Apache stole upon them. Terror was too much for them, and they hid themselves away, some of them on a site near El Paso, others in mountain fastnesses still more remote.

Wherever the traveler goes in New Mexico he finds such reminders of people who lived long ago. He looks upon sand piled up by the winds of ages and carved by other winds into forms weird, fantastic. He marvels at the rainbow colors everywhere—the yellow and red of cactus blooms, the green of the piñon trees, the dull brown of the rabbit grass, the red of the standstone rocks. In the clear sunshine there is one combination of colors, the moonlight brings another, but perhaps the best of all comes with the sunset when the sky is transformed, glorious. Who can forget a New Mexico sun-

set, especially if he has seen it from Santa Fe, as it kindles the horizon into leaping flame, paints the clouds with gold and red and other colors impossible to describe, and makes the distant mountains—which by day seemed so dark and uninviting—miracles of amethyst and lavender!

Yes, New Mexico is full of marvels, from Capulin Mountain National Monument of the northeast to the Gila Cliff Dwellings National Monument and the country about Silver City in the southwest; from the Aztec Ruins of the Northwest to Carlsbad Cave National Monument in the southeast, that marvel in the foothills of the Guadalupe Mountains which has been called the most spectacular of underground wonders in America. All of these outstanding features of New Mexico are made accessible by the ever-growing system of highways.

But New Mexico is such a vast State that it is not easy to seek out all its generous supply of marvels. So it is helpful to know that a few days spent in the country of which Santa Fe is the center will give a representative sample of the State's varied offerings. Some of the good things in this section may be reached by rail, but most of them are reserved for those who find it possible to leave the iron highway and venture into the mysterious region beyond. So the traveler in his own automobile is fortunate. But others need not despair, for they can take the Indian Detour trips offered by the Santa Fe System, which makes fascinating excursions into the heart of what has been called "the most wonderful fifty miles square in America." The amazingly comfortable journey by automobile begins at Las Vegas, and ends at Albuquerque, or it may be taken in the reverse direction. But what a series of surprises await those who take the highways in this favored region!

One of the beauties of the Indian Detour is that it

follows for many miles the route of the historic Santa Fe Trail, which led so many traders and adventurers from the Missouri River to Santa Fe. Long before the days of the explorer Pike they used the trail, but passage was irregular until about 1822, when the yearly caravan began. The thrilling story of those caravans has been told in Josiah Gregg's "Commerce of the Prairies," a book which was out of print for many years until the new edition prepared by Reuben Gold Thwaites, the historian, who in his Introduction tells of "that unique system of caravan exportation that flourished for twenty-five years before the American Conquest, employed many of the most daring spirits of the frontier, and paved the way for the possession of this region by the United States."

Then the historian goes on to tell how, "unlike the fur trade, which depended wholly upon friendly relations with the roving savages, the object of the Santa Fe trader was to avoid direct contact with the tribesmen, who hovered like marauding Arabs on the skirts of the advancing caravan. Safety, therefore, depended on numbers and organization; a system of government was evolved, by which a Captain was chosen for the trip, a plan of fortified and guard-watched camps established, and a line of daily march arranged. So successful was this method that for thirteen years preceding the closing of the Mexican ports of entry no trader was killed by the Indians, although Gregg tells of many earlier casualties, before the caravan system was fully developed."

In his book Gregg told in detail the story of the caravan of 1831, which was "the largest in number, equipment and merchandise which up to that time had engaged in the trade with Santa Fe." In the company were about two hundred persons, including a few women, one hundred wagons, two small cannon, and $200,000 worth of goods.

A careful reading of the account of this notable trip is a wonderful preparation for following the Santa Fe Trail, either by the Santa Fe Railroad or by automobile, through Kansas, across the corner of Colorado, by way of Trinidad to Raton Pass, and then on to Las Vegas and Santa Fe. How the vivid account enables the reader to picture the heroic days when the progress of pain and toil was made by the pioneers! And little imagination is required to picture at the same time the patient plodding of Spanish explorers and adventurers, who used the same route centuries before the days of the Santa Fe trade.

One of the finest bits in the history is the description of the coming of the caravan into Santa Fe. This arrival was watched by Gregg, for by hurrying his journey at the last he had entered the chief city of the Mexican province ahead of his comrades. Here is what he saw:

"Five or six days after our arrival, the caravan at last hove in sight, and wagon after wagon was seen pouring down the last declivity about a mile's distance from the city. To judge from the clamorous rejoicings of the men, and the state of agreeable excitement which the muleteers seemed to be laboring under, the spectacle must have been as new to them as it was to me. It was truly a scene for the artist's pencil to revel in. Even the animals seemed to participate in the humor of their riders, who grew more and more merry and obstreperous as they descended toward the city. I doubt whether the first sight of the walls of Jerusalem was beheld by the Crusaders with much more tumultuous and soul-enrapturing joy."

The condition of the highway may be vastly improved to-day, but the country through which the heroes passed on their way to Santa Fe is, most of it, unchanged. Even one of the road houses, a typical structure of caravan

days, stands near Santa Fe. The end of the route was at Santa Fe's plaza, and there a marker placed by the Daughters of the American Revolution tells the story. Across the square stood—as it still stands—the ancient palace of the governors, and just behind this was the inn where the weary traders rested in a real bed after long weeks in the open. The modern La Fonda Hotel has been built on the site. How those travelers of other days would have marvelled at the luxurious comfort of this house, which is only a sample of the hostelries provided for the comfort of those who take the Indian Detour, either in a conducted party or in their own automobile!

The Santa Fe Trail was the route taken by General Kearny in the summer of 1848, when he led 1657 men into the Mexican country. On August 15 he reached Las Vegas. Noting an adobe building on the north side of the plaza, he suggested to Alcalde Maes that both should go to the roof with the Alcade's captain, and that from this point of vantage he should tell the people the reason for his coming. When he was on the roof, he said, in part:

"We come among you as friends, not as enemies; as protectors, not as conquerors. We come among you for your benefit, not for your injury. Henceforth I absolve you from all allegiance to the Mexican government, and from all obedience to General Armijo. He is no longer your governor. I am your governor. . . . Not a pepper, not an onion, shall be disturbed by my troops without pay, or by consent of the owner. . . . There goes my army; you see but a small portion of it; there are many more behind; resistance is useless."

The surprise of the Alcalde and his captains may be imagined. But astonishment was still greater when the American commander said to the captain:

"Captain, look me in the face, while you repeat the oath of office!"

Thereupon the oath was read, and the captain swore to obey the American commander. Others followed his example, and Kearny was ready to go on to Santa Fe in his bloodless conquest of Mexico's fair province.

This peaceful issue was due, in large part, to the careful preparation of James Magoffin, who had gone before to persuade the people that nothing but their welfare was planned by the United States.

The story of Magoffin's services is outlined in a document on file in Washington, in which the man who prepared the way made claim for salary and expenses. He told how he "went ahead of General Kearny and secured his unopposed march into Santa-fe." He "went down the country and conciliated the people."

That his own estimate of his services was not overdrawn is evident from a document sent to him by Kearny. The document might have cost him his life, for when it was on the way to him he was a prisoner under suspicion at Chihuahua. The bearer of the message was captured, and the letter was sent to the authorities at the Mexican town, where they were looking for any bit of evidence that might enable them to execute Magoffin as a spy. How well Kearny's commendation would have satisfied them! But the letter was given into the hands of the military judge, who had been won by Magoffin's pleasing personality. Suspecting the letter, the judge carried it, unopened, to the prisoner, and suggested that if it contained anything incriminating, it be torn up as soon as read. The incident is valuable, for it gives a hint of the measure of Magoffin's success in winning his opponents.

The visitor to the little city where Kearny reaped the first fruits of Magoffin's service to his country does not find difficulty in transporting himself back for genera-

tions, as soon as he steps aside from the modern buildings on the main streets. A little to one side he will find many things that are primitive. For one thing, he may easily come upon building operations that differ in no essential respect from those of the days before the United States took over Las Vegas from the Mexicans. It is startling to see the making of adobe bricks from soil dug on the premises, and then the placing of these bricks in walls which look as though they might crumble with ease, though in fact they are ready for use through many years.

Chapter XI

SOME OF OLD NEW MEXICO'S SHRINES

The journey out of Las Vegas is still by the route of the old Santa Fe Trail, close to the Pecos Range. Cattle graze on the rugged slopes by the road. Frequently Indians pass, their donkeys laden with firewood, which they are taking to town exactly as when the primitive traders passed this way. Piñon trees cluster on all sides; to them Indians go in the autumn for what is a main item in their winter diet. The squirrels try to anticipate the Indians by hiding the nuts in the ground, but the native Americans have an uncanny familiarity with the location of the storehouses of these industrious nut gatherers; sometimes the larger source of piñons for the larder of the red men is the caches of the squirrels.

Kearny's Gap, where the bloodless conqueror of the country crossed the heights in 1846, and Starvation Peak, where the Indians starved a company of Spaniards whom they marooned aloft when the strangers ascended to look for enemies, are stimulating sights by the way.

Starvation would not be a difficult matter in this strikingly beautiful but barren country. Lack of food, however, was not responsible for the desertion of the little village of Tecolote, where broken houses cluster by the roadside. Those who lived in these houses found the winds too trying even for them, and they sought homes elsewhere, leaving their little walled cemetery as a memorial of their abiding-place.

Perhaps many of them went to San Jose, the larger town near by. The clustering houses of this old settlement, where General Kearny looked in vain for opposition from General Armijo, are a strange mixture of the old and the new. The walls are satisfying. But the roofs! One San Josean, when his covering of poles and tiles called for repairs, put on a tin roof. Like sheep his neighbors followed this unfortunate leadership, until all the houses in the town, as well as the church, flaunted the modern but comfort-giving atrocity in the face of those who look for picturesque survivals.

But a few miles farther on this hunger for survivals is satisfied. For while the early traders were still thirty-five miles from Santa Fe, they came to Pecos, a village that was not abandoned until 1838, after long warfare with Apaches and Comanches. Thus when General Pike passed along this road in 1806, with his little army and the 2075 horses and mules, the old community structures were full of those who looked in wonder at the remarkable cavalcade. To-day visitors see only melancholy ruins. But how eloquently these speak of those days when this was the largest Indian town in the southwest, with a population exceeding two thousand!

When Coronado was there in 1540 he marvelled at what he saw, though there was then no towering structure like the mission church, which was built by the Franciscans in 1617. Castañeda, the historian of Coronado's expedition, said that the town itself was a large quadrangular structure of terraced farms, on whose balconies it was possible to make the circuit of the entire village without descending to the ground. How this could be managed will be understood by those who visit a modern village like Isleta, ascend the ladder to the flat roof of a house on one side of the quadrangular cluster,

and take a promenade, without gap or interruption, until a ladder for descent is found at some distance.

A few years ago, when archaeologists visited the site of Pecos, they found nothing but a heap of ruins. At first there seemed to be not one stone left on another, but as they proceeded most carefully with their exploration, they found the massive walls around the town, which was one of the first walled cities on the continent. Their patient efforts were rewarded by the discovery of remains of two, in some places three, and at one place four stories of the structure occupied by the community.

The most interesting and revealing explorations were made in the "kitchen middens"—the heaps of rubbish that grew up in the course of ages as waste was thrown out the back doors. These heaps of house sweepings may be seen still, though most of the discoveries made there have been removed. The various finds showed conclusively that Pecos was an old, old pueblo when Coronado was there. The scraps of pottery found are representative of periods from earliest days. For this reason the archaeologists rejoiced; as one of them wrote, "the ruins presented a cross-section, so to speak, of the development of Pueblo art," and thus gave data to students which enable them to "place in the proper chronological sequence the many hitherto (that is, before the investigations at Pecos) undatable ruins that occur in such abundance in the valleys and on the mesas of the region."

To the traveler interest in those rubbish heaps is increased by the knowledge that these were used as burial places. Of the two hundred skeletons discovered in the parts explored, some rested so far down under tons of debris that they were crushed by the weight. Fortunately, however, the other burials were, comparatively,

so late that they told much of the burial customs of the people.

The study of the ruins, in their setting of a country of great beauty, where the silence intensifies the glory of plain and foothill and mountain, should be supplemented by a visit to the New Mexico State Museum at Santa Fe, where is a large model of Pecos. This shows not only the two clusters of dwellings, but also the protecting wall, and the kivas, or ceremonial chambers. In one of these kivas was made the first discovery of a complete altar. In 1852, when Governor William Carr Lane visited the ruins, he told of seeing "three circular depressions in the court of the greatest structure, walled with rough stone, and still some five feet deep. Two of them are outside of the buildings. These I supposed to be cisterns for water, but others pronounced them estufas, where the holy fire was kept burning."

The model shows also the majestically melancholy ruins of the old mission. Unlike the main ruin, which was of rough stone, the walls of this Franciscan structure were of adobe. The dry air of New Mexico has preserved them, but, unfortunately, the walls were for many years a convenient quarry for building materials for the Indians and Spanish. But the scientists who visited the ruin saw that they were of such great value as a memorial of the past that they were not content until, in 1915, these were repaired so as to preserve them for future generations. Some of the original roof beams are still in place, and it is possible to see how the arch was used in the structure; in fact, this was one of the few missions where the arch was employed.

When the building was closed as a quarry, the chief necessity was protection of the walls from undermining by water. This was done—as those who stand within the walls may see readily—by placing concrete founda-

tions beneath them. The broken archways, doors and windows were repaired. Finally such a detached study of the ruins was made that it became possible to construct an accurate restored model, with the twin towers characteristic of so many missions. Even the ornamentation is clearly shown.

As the traveler stands before the ruins of the mission it is interesting to think that probably the fame of Pecos was responsible, in part, for the rumors that came to the Spanish in Mexico, in 1530, of civilized tribes who lived many hundreds of miles to the north. "Let's go there in search of their store houses, and their gold ornaments, and see for ourselves their manner of living," said Guzman. So, with four hundred men, he started on a long search which ended in disaster; they were lost in the mazes of the ravines and foothills of the unknown land, and a mere handful returned from the search for "the Seven Cities of Cibola."

In 1846 General Kearny was more fortunate, not only in finding Pecos, but in going on to Santa Fe. He was not insensible to the beauty of his surroundings, but he was more concerned with the possibility that his road might be disputed by the forces of General Armijo. Those who go over the route to-day will see how many good places for defense there were, for a determined army. A little to one side of the old track, and not far beyond Pecos, a series of bold barriers of rock—cliffs which look like walls of roughly laid stone—dominate the country. To-day nothing is there but peace: all possible hostilities, whether from Mexicans or from Spaniards, have gone forever. The place is notable not merely because of its majestic setting, within easy reach of the towering Sangre de Cristo mountains, but because this is the entrance to the famous big-game country of the Santa Fe National Forest. Pecos River, too, is noted

for the sport it provides for the fisherman. Before coming to the rugged spot chosen for the site of the inn, the stream flows almost directly south, for many miles from its sources on Baldy, through mile after mile of rugged canyon, past the old Pecos mine and the State Fish Hatchery. Much of the journey to its source may be taken in an automobile, for a good road winds with the river, crossing it at least five times on the way to Panchuela. It is only fair, however, to give warning that keeping to the road is extremely difficult—that is, unless the traveler is insensible to the repeated lure of intersecting canyons which lead off into the Sangre de Cristo. The steadily increasing altitude is marked by the appearance of trees like the aspen and the alder, natives of the heights. Then think of the presence within a short distance of five mountain peaks, each of them more than twelve thousand feet high!

But even if the route from the Apache Inn, instead of leading along the clear, swift Pecos, must be continued at once to Santa Fe, there are noble prospects of mountain heights and passages through country notable by reason of its history as well as because of its fascination. For one thing, there is Glorieta Pass, an old Indian camping ground. After crossing the elevation of more than 7200 feet General Kearny heaved a sigh of relief because one more possible place of ambuscade had been passed in safety.

The approach to Santa Fe is a delight unspeakable. How is it possible to talk of "down" in connection with a city whose elevation is more than seven thousand feet? Yet Santa Fe is down; it looks up to heights still loftier, on the northeast, then to the west, where the Sandias and Jemez mountains are glorified by the sunset, and to the south, where the heights of Cerillos say, so intelli-

gibly that it is difficult to keep from responding, "Come over and see the surprises we have for you!"

It is not easy to approach the old city with equanimity. Thoughts of the picturesque days of the pueblo dwellers, of the romantic records of Spanish explorers, of the coming of the vanguard of those who have brought peace instead of a sword, crowd in so fast that the surroundings are not realized until the traveler is in the very presence of survivals by the roadside like San Miguel Church—the oldest church in America, built in 1636, with its bell which, it is claimed, was cast in Spain in 1366—and the house across the narrow street which, it is thought by many, is the sole survivor of the town found on the site by Don Juan Oñate when he came this way in 1598.

But the pilgrim to the old shrines of New Mexico cannot dwell too long on even such venerable relics, for there are so many more of them. In fact, it is difficult to imagine a place which offers the sight of more historic monuments and reminders than there are within ten minutes' walk of the central plaza of Santa Fe.

The fact that the Villa of Santa Fe was founded on the site of Indian pueblos which were occupied long before the days of Columbus—this is evident from the discovery in the digging of sewers and the laying of water mains of ancient Indian walls and other more intimate relics of the people of long ago—has been taken by some as warrant for concluding that the hoary old Palace of the Governors on the plaza incorporates in its walls portions of a pueblo still older. But without such claims there is ample assurance of a past sufficient to provide all sorts of thrills for the visitors, and to arm them against those who sneer at the lack of venerable shrines here in America.

The settlers with Oñate designed the building for a fortress defense against the Indians whose hunting

grounds they had invaded. But it did not become the palace of the governors until 1609, at the coming of Don Pedro de Peralta, the fourth representative of Spain to hold the office of "Governor and Captain General of the Kingdom and Province of New Mexico." The first capital was known as Capya, at the Pueblo of San Juan, while the second was San Gabriel, across the Rio Grande from Capya. Then came Santa Fe and the building of the presidio for the garrison and the ruler, enclosed by a wall. In this group of buildings the palace had prominent place.

Those who are impressed to-day by the low-lying structure that survives can imagine how the Indians, accustomed as they were to great buildings, must have marvelled at the façade, four hundred feet long, with squat towers at either end. These towers—one was used as a chapel for the soldiers, while the other was a storehouse for powder—disappeared, one in 1780, the other still earlier, but the part of the building between the towers is much as it was at the beginning, with its long portal, whose roof was supported by great logs of spruce from the mountains. During more than three hundred years the building has seen many vicissitudes, but the reconstructions consequent have not destroyed the original plan nor replaced the old walls. Many of the logs used in the building have never been replaced. Many comforts were provided, including an acequia, which brought water from the river Santa Fe.

Within these walls the governors not only made their homes, but presided at the courts of justice, where many poor Indians were called to answer charges of opposition to Spanish rule, or, even more terrible, accusations of apostasy and witchcraft. Some of those convicted were executed; others were sold into slavery. There were, naturally, many murmurs of discontent and threats of

Looking north from Grand View Point, Grand Canyon of the Colorado

The Steel Suspension Bridge in the Grand Canyon of the Colorado

Bright Angel Point, North Rim, Grand Canyon, National Park

vengeance on the part of the Indians, and these finally led to the revolt of 1680, when attacks on the pueblos and the murder of Spaniards became so frequent that the people fled, with their possessions, including live stock, to the presidio. The low roof was fortified, two cannon being placed there, but these preparations were insufficient to overawe the Indians as they gathered in force from Pecos and many other pueblos. Enraged by the repeated attacks on their religion, they declared that "God, the father of the Spaniards, and Santa Maria, their mother, was dead." Their own gods, they declared, would help them.

They burned the chapel of San Miguel, pillaged many of the houses, and began a siege of the presidio that continued for five days. The siege was made acute by the cutting off of the supply of water from the aqueduct. When cattle were dying for the lack of water, and the people were perishing of thirst, the small force of Spaniards went out to battle on August 20. In spite of the fact that there were twenty times as many Indians as Spanish fighting men, the enemy were driven back.

Yet the victors, realizing that the entire country was in the hands of the Indians, withdrew to Paso del Norte on the Rio Grande.

During the twelve years when El Paso was the headquarters of the Villa of Santa Fe, the Indians were supreme in the palace. They made some changes in the building, though the most serious result of their presence in the Capital was the destruction of the cathedral, built in 1672, by Fray Alonzo Benavides. This Parroquia was begun on the same site in 1711, but even this has given way to a modern structure.

Visitors to the twin-towered structure of which the priest of San Miguel speaks slightingly because, in spite of its picturesque character, it has no history, though it

has ancestors, are interested in the story of the clock that disappeared when the second cathedral was torn down, as told by Ralph Emerson Twitchell, of the Historical Society of New Mexico, in his monograph on Dr. Josiah Gregg, the Santa Fe Trail historian, to whom reference has been made in this chapter.

"The Vicario, Rev. J. F. Ortiz, made a contract with Gregg for the building of the clock, which was located between the two towers of the old Parroquia. The Vicario, who had traveled abroad, wanted a clock which struck the hours, and Gregg agreed to build it for $1,000. Gregg fulfilled his part of the agreement in short order, being an expert mechanic, and having brought the more intricate parts of the clock across the plains from St. Louis. He installed the figure of a small negro in the clock, and as the hours were struck this negro would come out and bow for each stroke of the hour. But the Vicario thought he had made a poor contract, and refused to pay a balance of $300 due Gregg. Gregg went to Missouri. One day the little negro failed to come out and bow. The people had heard of the difference as to the payment which had arisen between Gregg and the Vicario. Some of the more superstitious declared that the negro's failure to appear was owing to the fact that the agreement had not been kept. The feeling became so intense that a letter was sent to Dr. Gregg, asking him, when he made his next trip to Santa Fe, to bring the necessary material for the repair of the clock. This he did, and he was thereupon paid in full."

It seems a pity that the clock was not preserved for use in connection with the new building. But at least visitors may imagine it as they gaze at the towers which appear as if they might be older than they are, and may gnash their teeth, if they will, at thought of the destruc-

tive Indians who robbed us of a cathedral almost as old as the palace.

While the Tano Indians occupied Santa Fe, they built pueblos of three and four stories on the side of the plaza where the Santa Fe Trail ended more than a century later. Then they erected a wall about the buildings, and fortified this so well that only those they wished to do so could enter by the single gateway to the plaza.

A general with a mighty name—Don Diego de Vargas Zapata y Lujan—succeeded in dispossessing the Tano Indians at Santa Fe, in spite of all their fortifications. Many of the Indians were killed before the survivors consented to surrender. According to the ideas of some, the palace should have its ghost, for Antonio Bolsas, the Tano Indian governor, hung himself in one of the rooms. Perhaps there are no ghosts because so many other deeds of violence have taken place within the walls—as, for instance, the murder of Governor Perez in 1837, when the Chinagores revolted, and the killing of the chief of the Utes by Governor Martinez, in the reception hall. This took place in 1844.

The plaza, too, could tell a lurid story of bloodshed. Forty-seven Indians captured by the Governor during the rebellion of 1680, were shot before the palace. Fighting and shooting and hanging there were quite frequent in early days. The Indians thought they had their revenge when, after killing Governor Perez, they carried his head around the square on a pike.

Shudders at thought of these deeds of violence may give place to gratitude for averted misfortune as we read of Governor Jose Chacon Medina Salazar y Villaseñor, Marquis de la Penuela, who, in 1708, decided to demolish the palace. Fortunately the Duke of Albuquerque, Viceroy of New Spain, learned of his plan, and asked him for his authority. The tourist who values historic

shrines should also pay a tribute of appreciation to Governors Pedro Rodriquez y Cubero and Joaquin Codallos y Rabal, who in 1697 and 1744 restored the building to its appearance before the conquest and repaired it thoroughly.

In an account of the Fiesta of Santa Fe in August, 1925, written for the New Mexico Historical Society, two sentences give a picture worth while of the activities seen during the centuries by these old walls, including "the state trials for treason, witchcraft and other capital offenses, the governmental routine in administration of the province, the outfitting of great expeditions, the assembly of Indian chieftains with whom treaties were made, the innumerable social functions and entertainments of the Spanish period. . . . Pomp and circumstance, military etiquette, court costumes and all the colorful touches of official life which characterized the Spanish regime of the eighteenth century found expression in the daily official life."

The grim walls of the prison, which was connected with the palace, have their story also. A part of this is the imprisonment, during the early years of the nineteenth century, of a number of Americans who dared to trade to Santa Fe in spite of the laws of Spain which prohibited entering the province for trade.

In 1812 ten men languished in the cells. Five years later Auguste Pierre Chouteau, with a companion, was immured in irons in the dungeons for a period of forty-eight days. Incidentally he lost $30,000 in trading goods. In 1819 David Meriwether while hunting with an escort of Pawnee Indians, was arrested as a spy, and taken to the Santa Fe prison. How little he dreamed that, thirty-four years later, he would be sitting in the place of the governor who imprisoned him! But perhaps the most famous American to occupy the palace

prison was Major Zebulon M. Pike, who was taken to Santa Fe by Spanish soldiers who testified that he had encroached on Mexican soil during the expedition in Colorado which gave to the world the knowledge of Pike's Peak. Not until he had been taken to Chihuahua, Mexico, was his release ordered.

Thought of incidents like these gives satisfaction to the visitor to the palace as he remembers that August day in 1846 when the troops of General Kearny reached the town, and that Governor Vigil received him in the palace. There, assisted by thirty citizens of Santa Fe, he was given refreshments, and the governor stood by, silent, while the flag of the United States was lifted above the palace, and a salute of thirteen guns was fired.

Then, on the plaza, General Kearny told the people that he had come with peaceable intentions and kind feelings to all, as a friend, to better their condition, and to make them a part of the United States of America. The response by Juan Bautista Vigil y Alarid, who had been left in charge by General Armijo, told of acquiescence in the events of the day, though there was no enthusiasm, since for the people of New Mexico the Mexican Republic was dead. Mexico, he said, was their mother; and what child would not shed abundant tears at the tomb of his parents?

At once the evacuation was begun of Fort Marcy, on the heights overlooking the plaza. The ruins of this structure are one more of the sights of Santa Fe that visitors wish to see, that they may appreciate the words of Le Baron Bradford Prince, Governor of New Mexico in 1889, for he says that "in the extent and variety of their panoramic views, the heights crowned by old Fort Marcy are absolutely unique, from the Gulf of Mexico to the Frozen Seas." Mountain summits afford prospects magnificent and sublime, "but from the still solid

walls of Fort Marcy you view a horizon rendered uneven and interesting by the peaks and mountain ranges whose names are familiar to the people. Within its circle lies the most ancient capital in our country, half hidden by its wealth of shade and foliage, and presenting a succession of public buildings, ecclesiastical and civil. These represent the history of centuries and the changing conditions of generations. Nearly or quite three thousand miles of New Mexico may be seen from the heights."

But when the builders of Fort Marcy descended to the palace of the governors, what a ruin they saw! A contemporary record tells how the roof was supported by a dozen of great pine beams, bleached and stained by age; the floors were of earth, and the woodwork was heavy and rough and in the style of two centuries before. The room of the lawmakers with its pine desks, had figured calico on the walls, for protection from the loose whitewash or gypsum. The floor of the governor's office was covered with a coarse woolen carpet, while the ceiling was of bleached muslin.

Gradually improvements were made, though in such a way that the picturesque characteristics of the old building were not destroyed. Governors continued to occupy it until 1886, when the modest Capitol, across the Santa Fe River, was completed. During this period perhaps the most famous of those who dwelt there was General Lew Wallace, who wrote much of Ben Hur within its walls. And possibly the most significant event was the raising over the walls of the flag of the Lone Star State in 1862, when the disloyalty of the troops of Fort Marcy enabled the Confederate forces to take power over Santa Fe. After two weeks, however, the flag of the United States was restored to its place.

Now the venerable structure houses the collection of the Historical Society, including the mural paintings of

Carl Lotav, which depict New Mexican scenery so attractively that those who are unfamiliar with it say that they must investigate its charms, while they are so faithful that travelers familiar with the scenes depicted see once more the glories they have visited.

Visitors will not find on the walls the gruesome decorative features of old in the festoons of ears of slain Indians and the scalp-locks of enemies slain in battle. These were draped over the windows and doors of the public apartments. Their place has been taken by reproductions of shields used for Indian pageants given at the annual Santa Fe festival. These shields were copied by young Pueblo Indians from ancient shields of buffalo hide which are still treasured by old men of the tribe.

Before leaving Santa Fe the visitor stands in admiration before the modern structure of the State Museum, across the way from the old Palace. The architects of this delightful building have combined in the façade, most harmoniously, six of the ancient Franciscan Mission churches—Acoma, San Felipe, Cochiti, Laguna, Santa Ana and Pecos. Thus the building is representative of what has been called the Santa Fe type of architecture, illustrated in private residences as well as in public structures like the High School building, office buildings, the hotel, and even a gas filling station!

Reluctantly the visitor turns away from this most alluring city of New Mexico. As he goes he vows that he will return some day, for in his mind is hearty agreement with the poet who wrote the song of Santa Fe:

"In a land replete with romance
Lies a city fair to see;
In a land which once was no man's
Before the days of history;

In a land of vales and mountains
Where the pines and cedars grow
On the banks of streams and fountains,
In old New Mexico.

"Santa Fe! Old Santa Fe!
Your call I ever hear;
Santa Fe! Old Santa Fe!
Your voice is always near;
Your charms I sound, the year around,
My heart is far away,
In the plaza, with its memories
Of dear old Santa Fe.

Chapter XII

PUEBLO, MESA, AND ADOBE

THE joy given by Santa Fe to its visitors is so great that where departure is made by such a route as that across the Bridge of the Hidalgos, almost beneath the shadow of the Cross of the Martyrs on the Heights of Cumaon, erected in memory of the Franciscan Padres who lost their lives in the Revolution of 1680, pause is welcome at the point where the road climbs above the city. The last lingering look brings up once more the keen satisfaction experienced in the old Capital, and consent is not gained to renew the journey until the mental promise of a return visit is renewed.

The climbing road and the passage over the tableland, within easy reach of the foothills, in the presence almost constantly of Indians and Mexicans bound cityward with their mules laden for the market, is a reminder of travel in the Eastern Pyrenees, where water is as scarce as in the country about Santa Fe, and travel is through just such a primitive countryside. On every side are weird, fantastic yellow turrets and pinnacles, heaped up and shaped by the winds which show their power in little hurricanes that twist and whirl over the sands and the dried mud. Fortunately most of these miniature dust storms are at a distance. But if the automobile is overtaken by one the experience is apt to last but a few moments. It may be unpleasant at the time, but the experience is worth while, for it affords one more taste of the offerings of the country that sighs for water.

"What are those bright bits on the walls and roofs of the houses?" asked one who had emerged from one of these temporary whirlwinds.

"That's right!" was the reply of the courier. "I see you don't intend to make the mistake of the man who wrote a brilliant travel article on Korea after spending twelve hours in the country, all of it on board a train that took him the entire length of the peninsula. He, too, saw the houses of the countryside, with just such decorations as that of which you speak. And in his article he spoke in admiration of the Korean appreciation for beauty that led to the ornamentation of their hovels with brilliant red flowers. The truth was, the color was due to the presence of red peppers, hung up to dry! And that is the explanation of the red you see on these houses. Those who live there are preparing one of the important ingredients of the appealing *chili con carne!*"

The approach to the Rio Grande River is marked by the presence of irrigation ditches and the transformation of the country from the endless brown and the dead green on the piñon tree to the more vivid green of the orchard, the pasture, and the cornfield. Above the deep blue of the sky affords a most effective contrast. Among those who have sought to profit by the life-giving waters are the residents of the pueblo of Tesuque, where visitors are welcomed to houses that are delightfully clean and are able to watch the process of baking in the curious out-of-door ovens that look like miniature Eskimo igloos, except that they are made of mud rather than of snow. Another pueblo, also on the left of the highway that leads north from Santa Fe, is San Ildefonso, where the makers of black pottery bring their wares to the roadside and wait in silence for the approaching purchases of visitors; where attention is attracted at once by the Black Mesa to which the pueblo dwellers frequently re-

tired when enemies were near. Once the enemies were not Indians, but Spaniards, as the defenders learned to their sorrow. This huge basalt cliff is called Tuyo by the Indians, for, according to their theology, it is the Sacred Fire Mountain. Those who climb to the summit find there remains of dwellings which were half underground. Residents of San Ildefonso make the climb frequently, that they may care for the fire shrines which they still keep burning.

From San Ildefonso the way is comparatively easy across the Rio Grande by the bridge at Otowi, then up the canyon of the same name. This rugged route by the Culebra Hill road, with its glimpses of writhing rocks and harmonious colors, is a welcome variation. A ruined town, Tsankawi, then more of the canyon roads, and finally the canyon of El Rito de los Frijolies, or The Little River of the Beans, where are some of the best examples in New Mexico of the ruins of ancient cliff dwellings, with the excavation, on the canyon floor, of the community houses built in a curious circular form.

In this country reminders of the ancient people and their dwellings are frequent; it is apparent how many villages depended on the Rio Grande for the life-giving water and clustered about Santa Fe. When the road is retraced to San Ildefonso, it may be followed some miles to the east, then to the north, to Chimayo, interesting because the annoying Chimayo rebellion against the Spaniards had its beginning there, but even more interesting to most travelers, perhaps, because of the blanket-weaving industry whose product is apt to make the traveler discontented because he cannot take with him all the rainbow-hued products of the loom that appeal to him.

Then only a short distance from the Chimayo looms, Sanctuario invites the pilgrim within the walls of the

chapel—a comparatively modern building, for it was built in 1816—that he may see the wood carvings and other tributes of those who declare they have been cured of their bodily infirmities by visits to the wonder-working shrine. Some of these tributes were brought from Truchas and Cordova, ancient villages to the northwest, where it is easy to agree that the builders chose well the sites. One of these is a thousand feet higher than Santa Fe, where every householder commands a view marvelous in extent and variety, while the other is in a secluded valley from which they must climb for the prospect their neighbors have without an effort.

From these picturesque towns passage is a simple matter west to Santa Cruz, then up that delightful Rio Grande Canyon, of which mention was made earlier in the chapter. That canyon road leads to Taos, noted because here are the pueblos of five terraces, highest in the country. The site was chosen well, for it is on the Taos River, tributary of the Rio Grande, and the waters which never fail are fed from the lofty mountains where, fortunately, the trees still cling to the slopes, in spite of forest fires that are so hungry for the growth that conserves the water supply.

Back through the canyon of the Taos River, the road brings the traveler to the spot where Kit Carson lived during the Civil War, where his home is pointed out, and his grave may be seen. This picturesque locality has been for years the Mecca of artists, many of whom have built studios there.

Now for the chief glory of all the trips out of Santa Fe. The route of the Indian Detour, which was left for the experience at Taos and in the country of Kit Carson, is rejoined at Española on the Rio Grande River, the metropolis of this farming country of the Santa Clara Indians, some of whom are seen in the fields by the road-

side or driving their heavily laden burros down toward the river. Sometimes the sure-footed beasts need all their tenacity, for frequently the road is narrow as it climbs on the rock shelf above the arroyo, between mountain ridges. Soon the Santa Fe National Forest becomes more than a name, for the scrubby growth of the river valley gives place to the great pine trees which lift their tops far up toward the blue sky.

Most unexpectedly, amid the trees, appears the Puyé Rest House and Museum, where representatives of the Santa Fe School of American Research carry on investigations begun some years ago in the tremendous cliff ruins and community house of Puyé.

Above the Rest House the ground runs rapidly to a majestic cliff more than a mile long, which appears from below to be honeycombed with openings of all sizes, from caverns large enough for a man to enter to mere openings the size of the hand. The caverns were the inner chambers of houses built on the face of the cliff, and the small openings received the sturdy roof timbers of the outer apartments. The timbers have disappeared, as have the outer chambers. But the inner caverns in the cliff to which access was gained from these outer chambers remain, to the joy of those who began the excavation in this, "the first of the ancient pueblos of the Rio Grande Valley to be systematically excavated." Closer examination of the cliff reveals several crude stairways, made up of mere footholds in the rock deepened by the tramp of moccasined feet through unknown ages. The ascent of these ladders in the living rock is not easy, but it is quite practicable. Then comes the exhilarating climb along the face of the cliff, with opportunity to enter the caverns where utensils of many kinds have been found, as well as corn cobs, marks of fire, articles of personal adornment, and many more reminders of the

people who departed long ago. At an advantageous point in the rock a kiva or ceremonial cave was sunk in the rock, and a ladder makes easy descent into this chamber where no one but the men could go, and boys who there experienced the mysteries that marked their entrance into manhood.

Other deep trails in the rock lead to the top of the cliff, where the explorers have laid bare the foundations of some twelve hundred rooms, with a kiva of their own sunk deep in the rock. One who looked at this upper story of the great apartment house spoke of this as a suburb, which was populated when the available locations of the face of the cliff were exhausted. It is, however, more accurate to say that the upper dwellings were the community house of those forgotten seekers of the cliff which they called by a name meaning, "The Assembly Place of the Cottontail Rabbits."

With what tremendous effort did generations of skilful builders of an age long gone contrive these fastnesses in the rock, for safety from any enemies who might approach! With remarkable cunning they chose the lofty cliff in the Pajarito Plateau ten miles from the Rio Grande, whose history has been described by one of the scientists who made exploration thus:

"It is a fragment of the great tupaceous blanket that once covered the entire Pajarito Plateau to a thickness of from 50 to 1500 feet. The covering of turf has been completely desiccated by ages of water and wind erosion."

Fragments only of the rock blanket remain, mere geological islands in the country between the Jemez Mountains westward to the Rio Grande. Some of these islands "were chosen by the people whom we speak of as cliff-dwellers, because they saw the possibility of guarding the side where the descent is easy to the valley, while

they knew that no enemy could scale the side which rises precipitously from the arroyo."

Let us pause a few moments in our exploration of the caverns in the rock, while we think of the toil, continued for many generations, of those who, with crude instruments of obsidian, cut away the rock for footholds, for caverns, and for rafters; who brought from the plain below the pine poles which they fitted into the rock-sockets; who carried from a distance the volcanic rock from which the houses were built; who planned a reservoir on the top of the cliff, the size of three city lots, with an embankment of stone and earth. There was no flowing water near, so the only use for the reservoir was to catch the water that fell near by. Drinking water had to be brought from the arroyo, or even from the river, ten miles away, as is done by those who live near the base of the cliff to-day.

Now listen to one of the scientists who made the exploration of the dwellings at Puyé, as he describes the view almost beyond compare. He talked as if he had paused many times in the course of his labors, while he gazed spellbound at the scene spread out from the top of the cliff over the country from which enemies might be expected to confront those who were perched on the cliff or who dwelt far up on the roof of the plateau. This is the way he talked:

"A few miles to the west is the Jemez range, with its rounded contours and heavily forested slopes. On the eastern horizon one sees a hundred and fifty miles of the Santa Fe range, embracing the highest peaks in New Mexico. The northern extremity of the panorama lies in the State of Colorado, and at the south end, near Albuquerque, is the rounded outline of the Sandia Mountains, Oku, the 'Sacred Turtle' of Tewa mythology. Between the ranges extends the trough of the Rio Grande. . . .

In the immediate foreground to the east one looks down upon the level plateau stretching away to the valley. In the summer and fall this is variegated by masses of yellow flowers, which cover the open parks among the junipers, marking the fields of the ancient inhabitants. Beyond this lie several miles of open grass lands. Southwest, about ten miles the great black bulk of Tuyo rises from the edge of the Rio Grande Valley." (This is the historic Black Rock, which was mentioned when we were at San Ildefonso.)

Those who visit Puyé may be satisfied if they find visits to other cliff ruins impossible, for this is considered by the archaeologists a fine example of the ancient Pajarito community. Everything characteristic of Pajaritan culture was found here, including house ruins, sanctuaries, pictographs, implements, utensils, and symbolic decorations.

On the return from Puyé it is interesting to pause at Santa Clara Pueblo, near Española—which the Tewas called by the poetic term meaning, "Where the wild rose bushes grow near the water," for there lived the men who claimed descent from the people of Puyé, and ownership of the ancestral cliff. Solemnly the request to explore the ruins was laid before the head men of the community, and this was not granted until after long and diligent consideration.

To-day the leaders of Santa Clara are proud of the evidence that has been found which bears testimony to the wonderful ability of their ancestors. One of these men welcomes visitors to his house, dresses for them in the costume of a chief, and takes them into an inner room, which he has equipped after the manner of an ancient kiva or ceremonial house, where he explains what went on in these sacred precincts as the story has been passed down from father to son for many generations.

When a visitor asked if he might buy the magnificent head-dress, the wearer replied:

"I will make you one. But it will be long. The eagle feathers are many, and they are hard to find. Maybe three months I have it for you."

While there is a good road down the Rio Grande, this road does not extend to Albuquerque, so it is necessary—fortunate necessity!—to retrace the route to Santa Fe, past the Black Mesa which means so much more after the visit to Puyé, and on over the uplands between the Rio Grande and the Santa Fe River to the hoary city of Oñate, and Peralta; of the Spanish Antonio Bolsas and Jose Gonzales; of the Revolutionary Indian Governors, Manuel Armijo and De Lajanza, Mexicans; of Stephen Watts, Kearny and Lew Wallace, Americans!

To approach Santa Fe once more with carefully made determination to pass through without pausing is one thing. But to carry out the resolution is another matter entirely! The most hardened keeper of schedules finds himself wavering as he looks down on this most historic city of the United States, and when he is between the Plaza and El Palacio Real he is apt to capitulate shamelessly and without a word of apology.

But the time must come for gazing on the last of those glorious sunsets over the mountains to the west of Santa Fe. Let not the rapt words written about those daily panoramas be set in deadly parallel columns, in the hope of putting to confusion the chronicler who has spoken of amethyst in the heavens and lavender on the mountains! Try to describe these flaming sunsets and their after glow in terms consistent and scientifically accurate!

The time has come to take that road of exhilarating ascent followed by the abrupt and graceful drop over La Bajada Hill which has been spoken of in connection with the visit to the pueblo of the Saline Lakes. The

objective point may be Albuquerque. But how is it possible to resist the lure of the Cerillos turquoise mines away to the left, or of the road to the west, across the Rio Grande, to Cochiti? Only another pueblo? Yes! But it gives a chance to see the mission church, the kiva, and the old adobe houses grouped about the plaza where the men and women and children of the village gather for their tribal ceremonies, like the July Corn Dance.

When travelers pass—somehow the Indian seems to know the difference between a tourist automobile and that of a native—the inevitable sellers of pottery are in evidence. Yet there is a difference in this region; instead of rushing up when it is known that prospective buyers will pause, the Indians build booths of piñon branches by the roadside and sit placidly from morning until night. Sometimes these wayside shops of green boughs are as plentiful as refreshment stands on a popular highway. Are these roadside merchants keener than their brothers in other places, or are they lazier?

At any rate they are not so slow as buyers sometimes think them. Very likely one of the women who lives near Bernallilo is telling yet of the customers who thought they were sharper than she when she offered an unusually attractive bowl.

"Two dollars!" she asked.

"Too much!" was the reply. "One and a half!"

The seller shook her head, and looked expectantly at another prospective purchaser who had reached her hand for the bowl. She, too, offered the same reduced price as her companion. Again the concession was denied.

The car was getting under way. The seller's eyes gleamed, as she saw two eager women putting hand in purse. "I take!" she said.

The money agreed on was passed to her by the woman in the back seat who held the bowl. Then a run ahead

to the woman in the front seat, and a second time the purchase price was paid.

Two women looked triumphantly at their companions as the simple Indian was left behind. "That's the way to manage them!" was the remark of one. "See how superior intelligence dominates them!" the other said, as she turned to the woman in the rear seat with the smiling request that she pass over her bowl.

"Your bowl!" came the reply. "I paid for it. She took the dollar and a half I offered her."

"But I paid her the same amount!" responded Front Seat.

To ask two dollars and receive three dollars was probably unique in the trading experience of that wayside merchant!

But even such a tragedy is forgotten speedily when Albuquerque is reached, not only because this bustling city is worth while in itself, but because it, too, is a center for numerous expeditions that make more complete the vivid impression of New Mexico.

A short hour's ride to the west, across the Rio Grande, is a group of three extinct volcanoes, in a region where lava in the valley is the remainder of the days so long ago, when from each of these cones liquid fire rained on the country round about.

Three hours' travel to the northwest brings the tourist to the Jemez Soda Springs, where the Indians early learned to resort for the help given by the waters. Near the remains of the old mission, built for those who chose the springs for their dwelling place, a weird formation stands above the little rushing stream that flows from the springs. This is the Soda Dam whose lava-like draperies look like a frozen waterfall. The green trees beyond, and the caverns in the face of this bit of Nature's sculpture, help make a picture that will be remem-

bered as one of the most striking in New Mexico's varied panorama.

Once more, ninety miles to the west, to Acoma and Laguna, pueblos where hundreds of Indians live after the manner of their fathers. In 1699 the ancestors of those who live at Laguna fixed their dwellings on a rugged hill. But Acoma, the sky city, is the best example to be seen of a village on a mesa that can be compared to those that have disappeared. "The People of the White Rock" are perched far up on an isolated rock whose precipices rise four hundred feet above the plain! There the Spaniard Marcos found their ancestors in 1539, within a short distance of that even greater marvel, the Enchanted Mesa, whose depopulation is the theme of weird legends which those familiar with the country tell with relish.

Perhaps a longer trip is desired before leaving Albuquerque. The opportunity is at hand. Two days are sufficient for the journey of less than four hundred miles, through the wonderful country of the Saline Lakes, with the ruins of Quarai and Abo, and the Gran Quivera National Monument, to Carlsbad Cave, explored in 1924 by Willis T. Lee, and since visited by thousands of enthusiasts who cannot forget their wonder at this majestic cavern, now a National Monument.

Yes, New Mexico has much more to offer than these pages can describe. But those who look with understanding eyes on scenes mentioned, with Las Vega, Santa Fe and Albuquerque as centers and points of departure, can never listen without protest to the thoughtless insistence of those who think they have seen the Rocky Mountains when they stop before crossing the southern line of Colorado.

Chapter XIII

AMID AMERICA'S OLDEST RUINS

A FUTILE sport among travelers in the boundless West of our country is the comparison of National Parks. But while it may be both foolish and impossible to compare the areas administered for the people by the National Park Service, it is not invidious to say that there is one area so different from all the others that it stands in a class by itself, of such absorbing interest to America that it should be seen in preference to others, if there must be a choice, and so satisfying in its outstanding scenic features that the wonder and amazement caused by it are second only to the absorbing and absolutely unique glimpses of ancient America granted to those who spend a day or a few days on Mesa Verde, the alluring area fifty-six miles west of Durango in Southwestern Colorado.

A few years ago there might have been justification for the fear that Mesa Verde National Park could be reached only with difficulty, in fact with a degree of risk and hardship. But that time has passed. For, under the administration of Jesse Nusbaum, not only has the Park itself made great strides in comforts offered and in resources developed, but the approach has been improved until today the road from Mancos to Mesa Verde, one of the spectacular highways of the United States, is easy and safe. The difficult one-way road that gave the journey a bad name is a thing of the past, and no driver

of a car need hesitate to move out from Durango to Mesa Verde.

Mesa Verde (the Green Mesa) has a name that describes it with absolute accuracy. Think of a tableland, many square miles in extent, which rises 1800 feet above the surrounding country with as much definition as a billiard table above the floor of its apartment. Let this tableland—fifteen miles long and eight miles wide—be gashed from its outer edge with canyons, which bite deep into its heart. Of old the Indians and their predecessors for three thousand years gained access to the mesa by means of these canyons, as do their successors today—for Indians come in numbers to the Park, where they are the chief laborers. High up on the sandstone walls of the upper canyon the strange people of long ago discovered arched recesses—they can hardly be called caves—where they built the houses that have been the amazement both of scientists and of people of less specified knowledge, since that August day in 1888 when Richard and Arthur Wetherill had their first amazing glimpse of Cliff Palace, while they were hunting for their cattle.

They must have had a tremendous task in discovering those cattle, for the Mesa's 120 square miles are covered with a dense growth of juniper and piñon trees.

How the Wetherills would have been amazed if they could have had a vision of the modern traveler's approach to this green mesa! First, around the La Plata, glowing mountains from whose heights comes down air gratefully cool on a warm day in summer. When remark was made on the warm coloring of this region, a native said:

"But you should see these hills when autumn lays a Persian rug on them."

The road grows more steep. At length it begins to mount along the heights that lead to the goal. Easy

turns about the cliff by the roadside disclose, in turn, Utah's Montezuma Valley, with the La Sals, the Blue Mountains and the Bear's Ears as conspicuous features. Back in Colorado, Lizard Head holds the eye. Later there is a glimpse of New Mexico, with that outstanding Indian landmark, sixty miles away, Ship Rock, rising 1800 feet from the desert. Perhaps one hundred miles beyond this spectacular formation, and farther to the west, are Arizona's Carrizo Mountains. Thus four States may be discerned from this eminence. For near by is the sole instance in the United States of the meeting of the territory of four commonwealths.

The first glimpse of the wonders of the park comes at the Administration building, for the balcony looks across a canyon to Spruce Tree House, a communal apartment of 114 rooms, built, like the others, in an opening in the cliff made by the weathering of soft layers of rock between harder formations. This distant view of a typical cliff dwelling is a good preparation for a study of the ruins.

These ruins have not been restored, in the popular meaning of the word. Touches necessary to prevent further deterioration have been added here and there; these were necessary, largely because of the dwelling in the ruins of cattlemen who burned for fuel many of the old roof timbers. Some walls have been repaired with care. But as a rule the ruins stand exactly as they were disclosed when the débris of centuries had been removed. Even the finger prints of the women who were responsible for the placing of the stones and the mortar—for the men were content to reserve for themselves the construction of the ceremonial kivas, into which no woman could enter—may be seen distinctly in numberless places. Experts who have examined these say they are the marks of women's fingers; and the experts are just as confident

that the finger prints of men are on the walls of the mysterious kivas.

After a look at Spruce Tree House, the product of untold centuries in the past, it is good to pass into the house of the Superintendent. With the same care with which he has administered the park he has constructed this house overlooking a canyon, adopting for it a style of architecture consistent with its surroundings and antecedents, nursing a meager appropriation until it could issue in a modest but effective house, and furnishing it with massive articles made by himself during the long days when deep winter snows maroon Mesa Verde from the outside world, in a style and manner that would have made the people of long ago feel at home if they could be led into such surroundings.

Who were the strange people who gave the inspiration for the Superintendent's house, who were responsible for these cliff dwellings to which he is devoting his life? We are told by archaeologists that the builders were fourth in the order which began with the Basket Makers (these people even cooked in baskets in which they placed hot stones), who lived about 2000 to 3000 B. C.; the Post Basket Makers, the inventors of pottery, whose date has been fixed at about 1500 B. C.; the Pit House Dwellers, pre-pueblo people, belonging to the time of Christ; and the Cliff Dwellers, who flourished from 800 to 1000 years ago.

In the park there are numerous evidences on the surface of the ground of the presence underneath of the primitive homes of families of Pit Dwellers; bits of flint and broken pottery point the way to excavations which have not yet been made. One such home has been excavated, and has been roofed over. This is circular, with a fire hole in the middle, while near one bit of the circumference are several compartments fenced off by bits

of rock placed upright. The pit is about two feet deep. There are evidences that this was roofed over in much the style of the present-day Navajo hogan. The sod beneath the excavation is baked hard, especially the fireplace.

But the chief work of excavation has been on the houses of the people of the fourth culture, as listed in a preceding paragraph. These were the Cliff Dwellers. Of the many hundreds of village sites already located in Mesa Verde, only fifteen have been excavated. Of these one of the most notable is Square Tower House, in the walls of Navajo Canyon. Square Tower, the central feature of the mesa, is four stories high, and the masonry is remarkable for men and women who had only the rudest stone tools.

Over in Fewkes Canyon the ruin of special interest is the New Fire House. Lest this sound like the description of the headquarters of the fire brigade in a modern town, the explanation should be made that this was a temple to fire. There is evidence that the fire ceremonial in this ancient place was similar to that of the Hopi Indians today. On November 17, each year, the Hopis extinguish the fire which has burned for twelve months. At sunrise next morning the new fire is kindled. No white man has seen the sacred ceremony, but it is known that the Indians do these things. It is known also that in the new fire house of the Hopis there is always on the wall a rude likeness of Kokopelli, a hunchbacked flute player, who has something to do with the fire ceremonial. And there is a similar picture of Kokopelli in the Fire House at Mesa Verde.

A short distance away—this time on the surface of the ground—is the Sun Temple. But why was not this built in a cave? The question seems to have its answer in a curious stone, protruding from one corner of the temple,

an unusual natural formation, called by geologists a cretaceous spring, whose natural markings must have seemed to the builders like the sun, with rays about it. On this stone three holes are lined up in such a manner that, on two days of the year, the days of the Equinox, they are directly in line with the noonday sun.

The symmetrical temple ruins are perhaps half as large as the original; the remainder of the walls has crumbled. Within the wall are two kivas, the strange circular chambers in which ceremonies incident to the coming of life into the world were performed. There is a curious thing about these kivas. It was necessary to have a kiva underground, since life came out of the earth, according to the teaching of the Cliff Dwellers. Yet these chambers had to be above ground. How was this difficulty to be overcome? Very simply; it is easy to beat a law if men wish to do so. The walls of the kivas in Sun Temple are double, and the space between is filled with earth. Thus the tribal law was observed.

But the noblest ruin of all is that of Cliff Palace. The Wetherills discovered this from a point far off across the canyon. What a marvel it must have seemed to them from this distant vantage point—like a toy village far down in a cave under the cliff! They gave it the name used for it today because they thought it looked like a palace. Yet it is only a village, though it is the largest known village of Cliff Dwellers. It is estimated that at least 600 people made their homes there.

A nearer view of Cliff Palace is given to those who look down the canyon from the Sun Temple. This prepares them for the sight that breaks on their eyes as they climb down to the level of the ruins, frequently using the very handholds and footholds hollowed out of the rock by the residents so long ago.

The most commanding house in the village has been

called the Speaker-Chief's house, not because it is known that there was such an officer, but because the house overlooks the village, has 14 rooms, has a balcony from which a speaker, using ordinary tones, can be heard in all parts of the village, possesses kivas of its own, evidently for the use of a man of importance, and boasts its own corn-grinding apparatus (the common people used the public grinding equipment).

In recesses far back in the cave the people of the village had a turkey run. The cobs of the corn thrown to the fowls have been found, as well as other evidence that for generations turkeys lived there.

So many things about this notable ruin lead the visitor to expect to see its builders appearing suddenly in the house; he feels that they must have left for only a little while. For instance, the walls of many apartments are black from the smoke of fires of centuries ago. When the hand is rubbed on the smoke, it comes away blackened.

They tell a story at the park of a woman visitor who was expecting the appearance of the builders. "Here are the Cliff Dwellings," she said. "But where are the Cliff Dwellers?" They thought she was joking, but soon they found she was in earnest. She was assured that the Cliff Dwellers had gone, never to return. So she turned to her automobile in disgust. "Come away!" she said. "It is just another of those government fakes."

How did this mysterious people live? What a play for imagination there is here! Warren E. Boyer has exercised his imagination on Cliff Palace. This is the result, which is as good as any:

"The last man in at night pulled after him to the top of each terrace a funny looking single pole-notched ladder similar to the modern approach to a chicken roost. The unusually late nocturnal wanderer, cut off, had a

legitimate excuse for not taking off his sandals and ascending the several one-pole, creaking ladders to reach his apartment. He couldn't. The ladders would be pulled up at a certain curfew hour and there was no automatic elevator in sight. So he would sleep in the canyon and doubtless think up a good alibi by morning.

"But if he happened to be a bridegroom, on the second morning his sandals would be outside his door instead of where he had put them on retiring. This spelled disaster. It meant quick divorce. One domestic slip like this ended the marital nuptials.

"Upon finding his sandals the only thing he could do was to step into them, descend a flight or two, turn the corner and probably tell his mother a sad story of too much mother-in-law.

"Whereupon, the much aggrieved bride, seizing the hematite lipstick of brownish red, would put fresh roses on her cheeks, fashion a Cupid's bow out of her drooping lips, and saunter forth in single blessedness. Getting down into the footlight area of the cave stage at night, she would look westward across the canyon and, calling a turtle dove to rest on her left shoulder, she would make faces at the man in the moon!

"She was through with men forever—or at least for a day!"

Why did these strange people disappear? And where did they go? Here, too, imagination has its part to play. Alfred Castner King wrote a sad poem that has had much popularity in the West. He bases his lines on the River Dolores, which flows near the Mesa:

"Long ago, ere the foot of the white man,
Had left its first print on the sod,
A people, both free and contented,
Here mesa and canyon ways trod.

Cliff Dwellings, Prehistoric Pueblo of Puyé, near Santa Fé, New Mexico

State Art Museum, Santa Fé, New Mexico

Dwelling of Pueblo Indians, Sante Fé, New Mexico

Indian Village, near Albuquerque, New Mexico

Then Dolores, the River of Sorrow
Was a river of laughter and glee,
As she playfully dashed through the Canyon,
In her turbulent rush to the sea.

"The people, so artless and peaceful,
Knew nothing of carnage and war,
But dwelt in such quiet and plenty,
They knew not what weapons were for.
They gathered the maize in its season,
Unmindful of famine or foe,
And chanted their thanks to the Spirit
That dwelt in the Canyon below.

"But one evil day from the Northland
Swept an army in battle array,
Which fell on the innocent people
And massacred all in a day.
But the river still mourns for her people
With weird and disconsolate flow,
Dolores, the River of Sorrow,
Dolores, the River of Woe."

Plaintive, isn't it? Yet it isn't true! There is no evidence of a massacre, but everything points to a peaceable departure. Probably the Cliff Dwellers had heard of a better dwelling place, the Aztec ruins farther south. No one lived there. Why not they? So they went south, and became known there as "The Second People," the Aztecs being the first people. It is thought that their descendants are the Pima and Hopi Indians.

Now for a pilgrimage down to this new home of the Cliff Dwellers. Probably the original pilgrims descended to the Canyon floors, then marched out to the New

Mexico desert. Today a better way is down the modern road, then left toward the Utah boundary.

Those who continue west may reach the Monumental Valley, where many sandstone pillars, from 800 to 1200 feet high, rise from the desert floor. What a spectacle they make! Then the journey may be continued to the Natural Bridges of Utah, and finally to the Grand Canyon of the Colorado. Before many years it is hoped that there will be a highway that will give easy access to this wonder.

But the journey in the path of the Cliff Dwellers continues to the left, around the base of Mesa Verde, through Indian reservations where hogans and tepees are everywhere. The sight of an Indian carrying a red sunshade is ludicrous. Not that he fears the effect of the sun on his complexion; but he wants to be in style.

Some thirty-six miles south of Durango are the Aztec Ruins. These are on the ground, not in cliffs; perhaps this fact was an argument in favor of changing quarters from the Mesa Canyon! Here are many ruined houses. But one of the two most interesting things is the covered kiva. The structure is original, except for the curious roof. This, however, is a reproduction of the ancient roof which was found, burned and charred, within the kiva, where it had fallen. A study of the timbers enabled the authorities of the Heye Museum of the American Indian, New York City, to build a new roof in the old manner. This is a marvel of ingenuity. The builders of the kiva had to design a timbered roof that would cover a pit thirty feet in diameter. This they did with small logs not more than six feet long, and without a cross beam of any kind. How did they do it? The present roof tells the story of their success. But it does not tell of the manner of getting the trees from which the small logs were cut, evidently far up in the forests

of Colorado, and the floating of the timber down them to the location of the village.

The second unique feature of the Aztec Ruins—which is a National Monument—is the Museum. The contents, gathered from the ruined houses, are of great interest. But even more so is the fact that these relics are disposed in eight basement rooms of houses, which are unchanged except for the breaches in connecting walls, to permit passage from one to another. The original ceilings are intact; above the aspen beams is a coarse fiber, used to hold the mud plaster; the cords and knots by which the fiber is attached to the beams are as they were. And in the clay are the finger prints of the women artificers!

The relics found show that these dwellings were built by Chaco Canyon people about 2000 years ago. Later the Mesa Verde dwellers found them abandoned, perhaps 700 or more years ago.

Chaco Canyon is more than sixty miles to the east. In this marvelous canyon—entered from the floor—is Pueblo Bonito, one of the finest ruins of the Cliff Dwellers in the Rockies, though the houses are not so lofty as Mesa Verde.

Those who go to Aztec or to Chaco from the north will find their attention held by that massive formation in the desert, Ship Rock, a landmark of the Indians, as it is of the white men who travel that way. We are told that the primitive men of long ago believed that this ship came from heaven, carrying the people from whom the Navajo people descended. A still older legend says that in the "Winged Rock," called Sa-ba-it—would not the Indian have more realistic ideas of wings than of a ship? —Uni flew to earth, bearing the ancestors of the modern Indian.

Chapter XIV

COLORADO SPRINGS AND DENVER: GATEWAYS TO THE ROCKIES

"I'M GOING to Colorado!"

In 1876 Nym Crinkle told of a neighbor who made the surprising announcement.

"At first we were stunned," he wrote. The adventurous traveler was told that he would have to travel on a dromedary, for he would be crossing the waste with which both statesmen and geographers fooled themselves, The Great American Desert. Friends condoled with the man who was thus about to go into the unknown. "I'll get my life insured, and make my will!" they were assured by the man who was determined to take the risk.

The ludicrous comments recorded by Nym Crinkle were reminiscent of days when there was real danger in the journey to the Rockies, whether it was taken by the California route or down the Mississippi and up through Mexico by pack mules. One of the early travelers was John C. Fremont who, in 1842, started out over the plains with carts, but when the country became dangerous and food was scarce, the party freed itself of all but the most essential encumbrances. "The carts were emptied," the intrepid man wrote, "the covers and wheels taken off, and with the frames, carried to some low place among the willows, and concealed in the dense foliage in such a manner that the glitter of the iron-work might not attract the observation of some straggling Indian. In the sand, which had been blown up into

waves among the willows, a large hole was then dug, ten feet square and six deep. . . . We left the camp, fifteen in number, well armed, of course, and mounted on our best mules. A pack animal carried our provisions, with a coffee-pot and kettle, and three or four tin cups. Everyone had a blanket strapped over his saddle, to serve for his bed, and instruments were carried by turns on their backs."

Twenty-six years passed. Then Samuel Bowles, the famous newspaper editor from Springfield, Massachusetts, told the amazing fact that the borders of Colorado were but a day and a half from Omaha, and two days and a half from Chicago, and travelers could cover the distance "at a speed of twenty or thirty miles an hour," in "the elegant and ease-giving carriages" whose only drawback was "the common corner wash bowl that had to suffice for thirty or forty people." How Fremont would have laughed at such a tale of hardship!

In the days of these early travelers much wonder was expressed because the approach to the Rockies was so gradual as to be sadly unimpressive. To-day most travelers know what to expect—the plain, gradually ascending until the elevation is half that of many a high mountain before any striking elevation is seen. Yet there is something fascinating about the plains of Kansas and the nearly dry bed of the Arkansas, whose stream trickles so stealthily through mud flats that it is difficult to credit tales of the destructive torrent that drives across the plain in the time of melting snows.

Here is the land of cottonwoods where the cattlemen of a day that is not so far away made camp. And everywhere the fences that stretch far into the distance tell of the strife between the herders of the plain and the resistless tide of homesteaders. "Why do you want to settle in this arid country?" the cattleman was accus-

tomed to ask the squatter. As a matter of self-interest he used every effort to nurse the belief that this was an impossible country—that is, for anyone but himself. Even yet many are found who say that this is a dreary region. But those who have crossed the plains many times agree that there is a fascination in this arid country which it is difficult to explain.

Now come the bluffs, opening out—as a fur trader of 1839 said, picturesquely—like the wings of a stage. Bluffs become buttes, topped with fantastic rocks which are reminiscent of Dartmoor's tors—though the arid country at once contradicts the thought of resemblance to the region watered by the Dart, and blessed with rains so frequent that tourists are discouraged. Far ahead are swelling ridges, but the approach to them is so gradual that the traveler is upon them, among them, before he realizes the fact, and he wonders what has become of the ridges.

In this region early travelers began to look for buffalo. Many days on half rations, or worse, made "palates leap for the tender loin," as one of them wrote. Is it any wonder they felt like that after the lean and stringy flesh of the antelope, or, sometimes, after roots for which they grubbed in the arid soil?

It was after such an ordeal that F. A. Wislizenus wrote in 1839:

"We saw the first herd of buffalo. The rejoicing was general. The voyager at sea cannot long more for land than the traveler in that region for the buffalo. . . . Our first enthusiasm brought ruin to the careless herd, for twelve of them were immediately shot, and of most of them only the tongue was taken."

That same year Farnham told how the lumbering beasts were slain, not merely for food, but for the sake of the green hides from which boats were made for the

crossing of the Platte. When the animals were killed they were skinned, and the portions of meat saved were carried to camp in wrappings of hide.

Those who today pass over the region where once buffalo herds and Indians reigned supreme, look earnestly for the mountains. But their experience is like that of trappers and hunters of long ago; they are deceived by low-lying clouds that look like snow-clad peaks. "There are the mountains!" they shout, only to withdraw the statement as the clouds dissipate on the horizon.

But at last the cry is not withdrawn—there are the mountains, rising high into the snows! But how tremendous they would seem if, instead of having half their altitude swallowed up by the plains, they rose in all their majesty from sea level, like the mighty peaks of Hawaii or New Zealand!

Eyes are fixed on the heights so long that the dry country gives way without warning to a land transformed by the magic of the irrigator. Alfalfa fields and orchards border a cement highway. Houses of adobe yield to the comfortable looking homes in the country of the luscious melon and the pinto bean.

Now the mountains tower in serried ranks above the busy home of the steel mills—Pueblo, Colorado's industrial city supreme. The temptation comes to say that Pueblo is in the shadow of the mountains, but once an extreme literalist found fault with a book of travel whose author dared to say that a town was close to overshadowing mountains, when these were all of a mile or two distant!

That trip from Pueblo to Denver! How the railroad climbs up, up past wonderful Colorado Springs with its back yard featuring canyons galore and Cheyenne Mountain and the Garden of the Gods—that cyclopean aggregation of amazing structures to which Grace Greenwood

referred, in 1873, as "The Wild Park of the Red Rocks, whose towers, and turrets, and keeps, and pinnacles, surpass old Rhine Castles or the ruins of Kenilworth and Melrose." Of this region this author ventured to predict that "within twenty years" there would be a score of elegant cottages here!

Why is it that so many people everywhere, when Colorado is mentioned, think first of Colorado Springs? This is not due merely to the fact that early visitors to the State, like Helen Hunt Jackson, fell in love with the country about Colorado Springs, or to the further fact that the beautiful city of Pike's Peak has known how to advertise itself, but to the possession of a galaxy of attractions that draw, satisfy and gratify the traveler. Does he wish to ascend an outstanding mountain, either by railway or by a superb highway? There is Pike's Peak, rising more than fourteen thousand feet into the clouds. Is he curious about weird and fascinating rock formations? The Garden of the Gods is so near that he can pass within its gates a few moments after he leaves his hotel. Is he ready for one of the most unusual falls to be found anywhere, in a setting of lofty cliffs that give as much, if not greater satisfaction than the leaping waters? He has only to go to Cheyenne Canyon, through a charming grove of evergreens, and he can satisfy his longing. Does he seek a canyon road that is a succession of thrills of many kinds, from which he can rise by easy turns and twists until he is on heights from which he can look with fascinated eyes far down the valley and over the plain? Let him pass from the streets of Manitou, Colorado Springs' near neighbor, and he will be at once in Williams Canyon. Does he insist that even such a delightful canyon voyage as this should lead to something more than scenery? Then he can enter the portals of the justly famous Cave of the Winds and

spend half an hour in the easy, well lighted passages of a cavern that will make him feel rested, because there are enough formations in the passages to please, and not so many as to weary him.

How these marvels were seen in 1893 by Katharine Lee Bates, and inspired her verses, "America the Beautiful," was told by the famous member of Wellesley College Faculty in the Journal of the National Educational Association. She wrote:

"The sublimity of the Rockies smote my pencil with despair, and once arrived at Colorado Springs, there was little chance for verses. The faculty of the summer school consisted mainly of professors from the east and when we were not lecturing we were beset by the most generous and varied hospitalities. We were driven to Manitou, to the Garden of the Gods, to the grave of Helen Hunt Jackson, to canyons, lakes, glens, bluffs and cascades innumerable, all so marvelous that our stock of exclamations gave out. An enchanted summer! We loved it all, even when the road by a precipice caved in almost before we had passed, obliging us to spend a night at Cripple Creek, then in its first fierce development as a gold-mining center, with no baggage along but a volume of Browning. My Line-a-Day book carries, under date of July 22: 'Most glorious scenery I ever beheld.' And I had seen the Alps and the Pyrenees.

"My memory of that supreme day of our Colorado sojourn is fairly distinct even across the stretch of thirty-five crowded years. It was before the advent of automobiles, and the cog railway was not then in operation. I think we went by train to Cascade, where the carriage-road began, and there scrambled up into a belated prairie-schooner, its tail-board emblazoned with the traditional slogan, 'Pike's Peak or Bust.' Wondering at the brilliant spread of devil's paint-brush and the grey

reaches of giant mignonette, we came to the halfway house, where the horses were taken out and sturdy mules put in. We had all brought basket lunches, but our astronomer, Professor Todd of Amherst, warned us so solemnly of the danger we incurred in eating above the clouds that we meekly passed over our baskets to him. As a seasoned abider in the upper spaces, he proposed to remain a week on the summit, where the observation station was more famous for its view than for its food. The mules tugged our cumbrous chariot up and up through a waste of dead white stems, a ghostly forest, until the awful abode of the ancient Manitou, the Peak that young Lieutenant Pike had seen but never trod, was attained. We were all eager to jump out, but again were warned by our mentor that we must descend leisurely.

"An erect, decorous group, we stood at last on that Gate-of-Heaven summit, hallowed by the worship of perished races, and gazed in wordless rapture over the far expanse of mountain ranges and sealike sweep of plain. It was then and there that the opening lines of *America the Beautiful* sprang into being. But our stay was brief—barely half an hour. Professor Todd himself fainted and we were all unceremoniously bundled into the big wagon.

"It is my impression that I wrote out the entire song on my return that evening to Colorado Springs. At all events, the four stanzas were penciled in the notebook that I brought back to Wellesley. The comment carried in my Line-a-Day book on the poetic output of the summer under date of August 15 is: 'Consider my verses. Disheartening.'"

To many visitors the wonders described by the song writer are but the outer fringe of Colorado Springs' offerings. The best begins with the easy drive up Cheyenne Mountain, over a road of a hundred thrills, which

provides spectacles of increasing grandeur at almost every turn. Then comes the lovely Mountain Highway to Cripple Creek—built on the grade of an abandoned railway whose tracks have given way to automobiles, whose tunnels are helps rather than hindrances because they are short and restful, and lead always to better things. If the Cheyenne road may be said to have a hundred thrills, surely it is not too much to say that this has ten times as many. There are canyons and mountains, forests and plains, deserted mining towns that culminate in Cripple Creek, where gold excitement was at its height in the closing years of the last century. To-day the streets are deserted, houses are falling into decay, most of the business buildings are empty, and the mines that poured forth riches in abundance are idle, though here and there an old property has been leased by a skeleton company that brings to the surface enough low grade ore to assure a fair return. But far more picturesque are the prospect holes where one or two men sink their shafts in the daily hope of striking a vein that will satisfy their dream of riches.

"Only forty feet from our shaft a lucky man took out eighty-five thousand dollars in a few months," said one of these lonely workers. "Why shouldn't we do as well? Look at these bits of high-grade ore we have found already; there must be more a little farther down. See how much gold there is in this bit of quartz!"

And he proceeded to pulverize in his pestle a bit of rock the size of two fingers, then to wash in a pan the resultant powder, after the manner of the placer miner of early days. The task called for five minutes' toil, and in the pan showed at last grains of bright gold—worth four or five cents, he said. He owned he could get far better wages as a laborer on the streets. "But think what may come to-morrow!" he concluded.

Cripple Creek is close to the edge of the Pike National Forest, one of those princely reserves where men of vision are accomplishing far greater results than can be achieved by any seeker after gold. The visitor has only to go a few miles to see the results of their labors in the protection of watersheds, the replanting of areas devastated by fire, the setting apart of home sites for vacation seekers, the growing of millions of spruce and fir and pine trees from the seed, that the devastated areas of the vast forest may be renewed.

The wonderful nursery where these seedlings are made ready is under the eastern slope of Mt. Herman, and is reached by another of the spectacular highways that circle Pike's Peak State Game Refuge. This Mount Herman Highway gives glimpses of the far-off peaks of the Collegiate Range of the Continental Divide, and leads through a region of vast rocks piled together like the playthings of a giant, then on until, after completing the circuit of Mount Herman, it reaches the plain, and the road to Denver.

At Palmer Lake, by the side of the railroad, weird rocks rise above the water that was a landmark in the days of the plainsmen, famous to-day because it is on the summit from which waters flow north to the Platte and south to the Arkansas. Here, by the lake, from one point of view Elephant Rock looks like a kneeling pachyderm—fit preparation for Castle Rock with its heaps of rubbish rocks below, and its offering of a view of great sawtooth ridges of the Rockies away to the west, and bits of snow-clad peaks peeping out here and there.

Then Denver, gateway of the mountains! It is difficult to believe that the city is a mile above the sea. But it is so easy to agree with a visitor of 1873 who said:

"How inspiring was the first view of Denver! Young Empress of the Plains, to whom the mountains pay

tribute from their treasure chests—fair desert child of this wondrous golden age, with her stirring, yet pathetic legend, strange and wild and tragic—a city founded in peril, isolation, hardship and heroism."

Then she added: "Denver always keeps ahead of its chroniclers. To attempt to describe it now were almost like shooting at a deer running or a partridge on the wing."

The story of Denver begins in north Georgia. For, early in the nineteenth century, gold was discovered there, along the watercourse that comes down from the Blue Ridge. Dahlonega and Auraria were two of the names of places made famous by the gold.

But the Georgia gold deposits were not large, and when the news came of the fabulous riches of the discoveries in California and Colorado, many of the gold miners of Georgia turned their faces westward. One of them was W. Green Russell, who, when he was disappointed in his search for treasure farther west, remembered that he had seen traces of gold in the Pike's Peak country. A visit there gave so much promise of profit that he sought his old Georgia home, and while there persuaded a number of others to join him in the venture into the mountain wilderness. In the party were a number of Cherokee Indians, who were about to lose their hunting grounds in Georgia because the discovery of gold there led white men to look on with covetous eyes. Their purpose in visiting the Rocky Mountain region was to find a spot suitable for their new home. Perhaps the presence of gold there led them to urge that the move be anywhere rather than there. So they went to Arkansas.

As a snowball bounding down a hill steadily becomes larger, so Russell's company attracted others on the way. When they reached the Pike's Peak region there were

thirty or forty with him. Their first settlement was not a success, and they moved on to the banks of the South Platte. There they made a camp which they named Indian Row. This was in the last month of 1858. Before many weeks had passed there were perhaps four hundred people in the town. Later the men who were hungry for gold came in by scores and hundreds. Then the town was dignified by the name Auraria, in honor of the settlement of the gold-seekers they remembered in Georgia.

Auraria was more than a year old when a party of immigrants led by General Larimer crossed Cherry Creek and took possession of the cabins left by some of those who, following Russell, had tried to settle a village they called St. Charles. Their failure did not discourage Larimer's men; they took possession, and gave to their settlement the ambitious name Denver City, in honor of Gen. James W. Denver, Governor of Kansas Territory. At that time Colorado—as yet unnamed—was a part of Kansas Territory. Incidentally it may be added that Governor Denver later suggested the name Colorado for the territory taken from Kansas.

General Larimer was convinced that he was doing Governor Denver a real honor by bestowing his name on the infant town. For he felt sure that it would become an important city, since its location was so fortunate; not only was it the gateway to the mountains, but it would be visited by thousands and tens of thousands who sought the West and its wonders.

The 960-acre town site of Denver City was divided among the forty-one shareholders in Larimer's company. Each of these men obligated himself to build a cabin at once. So it came to pass that, very soon, the older Auraria saw itself distanced in the race for supremacy of the valley by its upstart neighbor. Difficulties were

solved, however, when Denver City swallowed Auraria, and the senior town became West Denver.

"Those were wild days in the young city's history," wrote a historian when there were more than 35,000 residents. "Thousands of excited people thronged her streets, living in tents, in wagons, in dug-outs, and in the rudest of log huts and shanties—the best they could. All the provisions had to be brought across the plains, except game and some cattle that Mexicans would drive up from Santa Fe. Yet there was no great scarcity, and though prices were almost uniformly ten times as high as at present [1880], gold-dust and coin were abundant, and wages in proportion. If a man thought it cheap to be able to buy a sack of flour at ten dollars, he felt outraged if he was not getting fifteen or twenty dollars a day for his labor."

In spite of the difficulties of transportation, a printing outfit was brought to Denver in the spring of 1859, all the way from Omaha. The first issue of the first paper, the *Rocky Mountain News,* made the announcement:

"We make our debut in the far West, where the snowy mountains look down upon us on the hottest summer day as well as in the winter's cold; here, where a few months ago the wild beasts and wilder Indians held undisturbed possession—where now surge the advancing van of Anglo-Saxon enterprise and civilization; where soon, we proudly hope, will be erected a great and powerful State, another empire in the sisterhood of empires."

The subscription price of the *News,* and of its competitor, *The Herald,* which was established soon afterward, was twenty-five dollars per year, or twenty-five cents per copy. At first the collection of news was difficult, because of the lack of any dependable mail service. But both papers were enterprising; not satisfied with

patronizing the stage coach and the pony express to Fort Laramie and other points, they subsidized transportation agencies of their own. These carried letters for which the recipients were glad to pay twenty-five cents postage.

During these early years Denver had its experience with Vigilance Committees. These dealt with the gamblers and outlaws who managed to make life most hectic. "Quarreling and bloodshed were of so frequent occurrence," according to the early historian already quoted, "as to excite no notice, and when anybody was killed, 'they piled the stiff outside the door,' and went on with the game, under the impression that it served the dead man right for not being quick enough to 'get the drop' on the other fellow."

Destruction of a more dreadful character came in 1864 when a great flood swept down from the mountains and inundated Auraria or West Denver, which was the business section of the young city. Many lives were lost, and much property was destroyed. To recover from this loss was comparatively easy, but further disaster came that night in the carrying away of the Arapahoe county safe, with its precious contents of land records. This loss led to endless complications during many years.

After the flood West Denver lost its importance, for business crossed the creek, and Denver proper came into its own. For some years, however, there were many difficulties, due on the one hand to Indian scares—both Arapahoes and Utes flung terror into the hearts of anxious Denverites—but also to the lack of transportation facilities. The completion of the Denver Pacific and the Kansas Pacific Railroads in 1869 led, within one year, to the increase of population from four thousand to fifteen thousand. Four years earlier, in 1864, Maurice O'Connor Morris published in London his Rambles in the Rocky Mountains, in which he said, "Colorado is a Her-

Spruce Tree House, Mesa Verde National Park, Colorado

Cliff Palace, Mesa Verde National Park, Colorado

cules in swaddling clothes." And Denver helped him to gain this idea.

Many more obstacles were surmounted during the following years. The hard times that followed the panic of 1873 left Denver gasping, but she rallied and soon was as hale and hearty as before. The scarcity of water was remedied by bringing streams from the mountains into the very streets. The pestilences due to contaminated water tried to intimidate the citizens, but they failed; soon Denver surmounted this obstacle also. Grasshoppers and crop failures for a time held back Denver and Colorado from their own, but only for a season. Soon the community was fattening on products of millions of cattle which found luxuriant feeding on the once despised buffalo-grass found so abundantly in many parts of the State.

So it came to be written in 1880: "Denver is to become to all Colorado what Paris is to France. Her assertion that she is to be the largest city between Chicago and San Francisco is likely to be realized."

One reason why Denver has prospered is the ability of her citizens to make light of the things that seem to be against them. Witness the engaging if extravagant statements of one of her own people in the early days who spoke of the wind, as "the great feature of the weather at all seasons":

"It does not always blow, but the pauses are so rare as to be positive relief. In congratulating herself that Cheyenne has from 1500 to 2000 more miles of west or north than she, Denver asserts no strong claim to being a calm locality. The dust, which is Denver's bete noir, is swept in blinding clouds at the shortest notice away from before you, to be deposited in some less desirable place, while you get the full benefit of someone else's pulverudent property. Nor has the Colorado wind a

decent and fixed purpose. It is a perfect Puck of a wind, dashing down from the mountains, or tearing in off the plains, at a pace that defies all preparation or caution. All the cinders resulting from kitchen fires are required by law to be put into little close domes of brick—quaint little structures, like Mexican ovens, that attract a stranger's eye at once, as he glances over the palings of the backyard. In one breeze a family lost their wash-tub, among numberless other things, blown miles away on the plains. . . . There is a yarn about a miner who, being swift of foot, chased his vagrant fire and held his skillet over it as it travelled. When his bacon was done he found himself fifteen miles from camp!"

Does the reader doubt the veracity of the tale? Then he will agree as to the wisdom of Thomas J. Farnham, who, when he wrote his *Tales of Western Travel,* gave as an alibi for stories that might be called in question:

"I cannot tell how the truth may be,
I tell the tale as 'twas told to me."

No visit to Denver is complete without a study of the stately civic center, with the Capitol crowning the hill on one side, and the beautiful MacMonnies fountain, the State Historical Museum, and the County and City Buildings demanding attention. Then there is the Greek Theater in Cheeseman Park, from which 150 miles of Rocky Mountains can be seen. The chief glory of the city is its wondrous setting within easy reach of majestic mountains. What views of these are provided from heights like the tower so like the Campanile at Venice, or from the lofty buildings that tell of the city's bustling life!

Let this distant view be followed by the matchless excursion far into the eighty-mile-wide belt of mountains,

made possible by civic spirit that matches the surroundings. For the peaks within the city have not satisfied Denver. The city has reached out toward the Continental Divide by means of one hundred miles of highway that connect more than seven thousand acres in thirty-nine distinct areas.

There are places along the twelve-mile stretch of highway between Denver and Golden, second capital of Colorado—the first link in the city's outer park system—where it is possible to catch glimpses of Mount Evans and Mount Long, two peaks that are higher than Pike's Peak. These prospects of distant sovereigns are forgotten, however, when climbing famous Lariat Trail, beyond Golden. In the six miles from the gate of the Mountain Parks the trail winds in most astonishing fashion up Lookout Mountain. No time is given to fret because of the curves and reverse curves by which the mountain is conquered, for every moment is needed to look down into Clear Creek Canyon, or out on the thousands of yellow pine seedlings planted by more than seven hundred Boy Scouts in their effort to assist Denver in protecting the city's water supply, or back on the plain that stretches away into the dim distance, or to the right on the peaks crowned with snow, that peer over the ridges between.

On Lookout's summit the grave of Buffalo Bill (William F. Cody) is close to the sign post that tells that this section of the Victory Highway shortens by three hundred miles the distance to California—that is, during the three months when the passes are free from snow. The time of the beginning of this brief period may be remembered easily from the fact that, on the Fourth of July, a number of towns make a part of their celebration the clearing from the passes of the last relics of the snows.

"To New York, 1790 miles, to San Francisco, 1340

miles," is the startling legend of the signpost that is the cynosure of many eyes during the period, all too brief, of the reign of this mountain highway.

How the features of that ride beyond Lookout City cling to the memory! Denver's Elk Reserve—a menagerie in the mountains! The white-crowned Arapahoe Peaks, out on the Continental Divide! Genessee Park with its inspiring views! The road along the ridge which is only an old Indian trail made over by the city's engineers!

The cultivated fields, the meadows, the trees which look as if they had been planted in order! Bear Creek, filled with trout, and Bear Creek Canyon—nine miles of it—where one road through the mountain parks swings back toward Denver, and then to Morrison Gateway, the end of eighteen miles of highway since Golden was left behind!

But this is only a portion of the sixty-eight-mile round from Denver back to Denver. After Morrison Gateway come more canyons, with fantastic rock formations, and so many other attractions that it is difficult to say if the country without the far gates is not as full of appeal as the road between Golden and Morrison.

The route described may be covered in half a day. There is a longer route which affords prospects of Pike's Peak and more 14,000-foot peaks; this calls for a full day. But Denver's Mountain Parks are worth far more than half a day, a whole day, or even a dozen days. It leads the roamer to delightful Bergen Park, then up to Idaho Springs, with its original Spanish circular granite trough for milling gold, used in 1863, and its monument, only a few hundred yards distant, erected on the spot where the first gold was discovered in Colorado. And from Idaho Springs there is a sightly, sprightly road to Georgetown, dead mining town, and on to Silver Plume,

by the side of the famous Georgetown Loop, a marvel of early mountain railroad building.

In another direction the traveler from Idaho Springs —still keeping within Denver's Mountain Parks—may go over thirteen miles of the best of mountain highways, overlooking a remarkable canyon, by the way, to Echo Lake, with its upward view toward Mount Evans.

Then on, up the shoulder of Mount Evans, to Summit Lake, near the top of the majestic mountain that is 250 feet higher than Pike's Peak. The road leads to the very summit, but the lake calls for a pause by the way that is difficult to end.

After the tour of the parks, outside the city limits, the time is ripe for another study of the parks within the limits, and the avenues which radiate from the Civic Center.

As one looks up at the State Capitol building, it is a good time to reflect that this might have been the capital not of Colorado, but of the State of Jefferson.

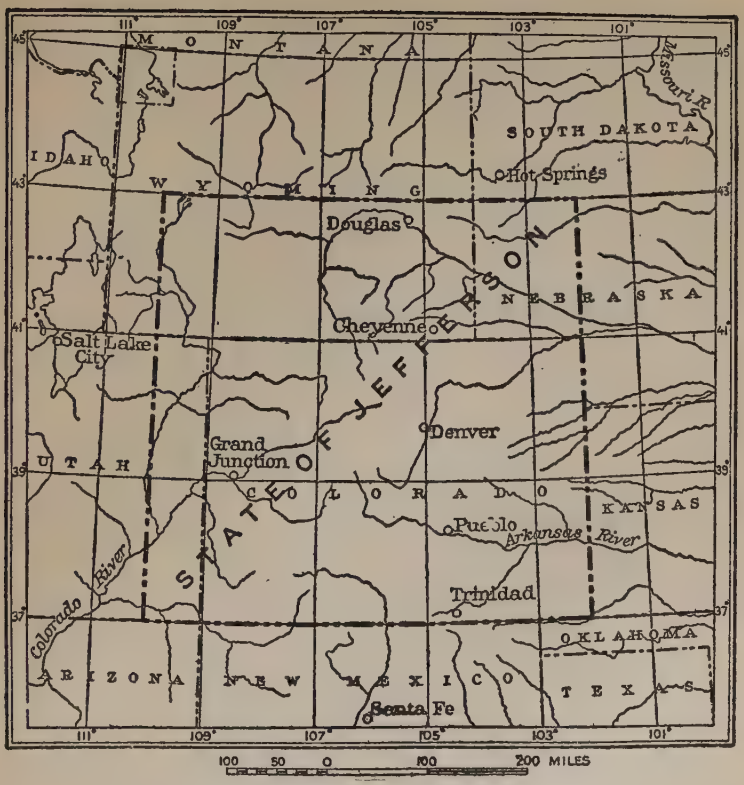
And thereby hangs an interesting tale. That tale, as outlined in a publication of the United States Geological Survey, is as follows:

"Few persons of the present generation are aware that a Territory, called the Territory of Jefferson, was organized in the mountain regions of Colorado and Wyoming, at the time of the great 'rush' to the Pike's Peak region, and that not only was the Territory organized, but a serious attempt was made to organize a State without the preliminary step of passing through a Territorial form of government. Such a statement now reads like fiction, but when the attempt was made the people were in deadly earnest and imagined that by taking vigorous action they could compel Congress to recognize and legalize their action.

"When the Territory of Kansas was organized in

1855, it included all of what is now known as Colorado that lies east of the Rocky Mountains. Then the site of the city of Denver as well as all of eastern Colorado was within the jurisdiction of the Territorial government of Kansas. The control by the government was merely nominal, and as its seat was far off and difficult to reach, the people of the mountain district were inclined to pay little attention to its authority.

"When gold was reported in the Pike's Peak region, late in 1838, the few pioneers here became imbued with the idea that this was the richest part of the Continent, and that when its wonderful store of the precious metal became known people would flock there in numbers so great that some sort of government other than that afforded by far-off Kansas would be necessary for the protection of life and property. These pioneers, though they were but recent arrivals, did not believe in waiting for action by the Territory of Kansas or by Congress; they proceeded to organize a government which they hoped Congress might approve and legalize. In the autumn of 1858 a few men from the settlements about Cherry Creek (the site of Denver) assembled for the purpose of creating a new State or Territory in the Pike's Peak region. This new political division was to be considerably larger than the present State of Colorado, as shown by the accompanying sketch map, and was to be called Jefferson, in honor of the President of the United States who had been instrumental in executing the Louisiana Purchase, which included most of this region. This convention met in Denver City in April, 1859, and passed a series of resolutions preparatory to the organization of the State of Jefferson, hoping by their action to start it full-fledged upon its career of statehood. The convention also issued a call for a general election on May 9



State of Jefferson, as Proposed in 1858.[1]

[1] From Guidebook to the Western United States, United States Geological Survey Bulletin 707.

of delegates to a State convention to organize the State of Jefferson.

"The delegates met in Denver City June 6, 1859, and appointed committees to frame a State constitution and to report at an adjourned meeting on August 1. Before the time for this adjourned meeting the people began to realize the great expense of a State government, and many decided to favor a Territorial form. The result of this difference of preference was a compromise resolution to submit both propositions to the voters. The election was held on September 5 and resulted in the decisive defeat of the proposal for statehood and in favor of a Territorial form of government.

"On October 3, 1859, a call was sent out for an election of delegates to a convention to organize the Territory of Jefferson. Many of the participants in this movement fully realized its illegality, so in order to be on the safe side they prepared a county ticket, to be voted on at the same time, providing for the election of officers of Arapahoe County, Kans., and also of a delegate to the Kansas Territorial legislature. An editorial in the *Rocky Mountain News* of October 6, 1859, says:

" 'So it goes; one day we understand that we are cut off from Kansas; the next we have cut ourselves off and will pay no regard to Kansas legislation but have an independent government of our own; and the very next, when there is a chance for a petty office under Kansas laws, there are hundreds ready to enter the lists, and before their certificates of election are dry in their pockets you will hear them lustily advocating "independent government" and "let Kansas go to the dogs."

" 'Here we go, a regular triple-headed government machine. South of parallel 40 we hang on the skirts of Kansas; north of 40 on those of Nebraska. Straddling

the line, we have just elected a Delegate to Congress for the Territory of Jefferson; and ere long we shall have in full blast a provisional government of Rocky Mountain growth and manufacture.'

"The convention assembled on October 10 and formed a Territorial constitution, which was ratified by the people at an election held on October 24. The name Jefferson was retained for the proposed new Territory.

"Although the leaders recognized the illegality of their actions, Territorial officers and a legislature, the 'First General Assembly,' were elected. The legislature began its first session in Denver City November 7, 1859. The *Rocky Mountain News* was an ardent supporter of the Jefferson Territorial government and in its issue published after the meeting of the legislature made the following glowing prediction of the future of the Territory:

" 'We hope and expect to see it stand until we can boast of a million people and look upon a city of a hundred thousand souls having all the comforts and luxuries of the most favored. Then we will hear the whistle of locomotives and the rattle of trains arriving and departing on their way from the Atlantic and Pacific. . . . The future of Jefferson Territory, soon to be a Sovereign State, is glorious with promise.'

"The first session of the legislature was marked by the enactment of many general laws and special acts, and the members seem to have been imbued with the idea that they were building a great mountain commonwealth, but in the following year interest in the Territorial government of Jefferson began to wane, as the people realized that their efforts were likely to be fruitless. Not entirely disheartened, Gov. Steele issued a proclamation for the annual election of officers in the autumn of 1860, as pro-

vided in the constitution, but in this proclamation he warned all candidates that they would be expected to serve without compensation. This warning was given because of the growing belief that the local Territorial government would not be recognized by Congress and that all acts of its legislature would be declared invalid.

"The second general assembly convened in Denver City on November 12, 1860, but on account of opposition by the city to the continuation of the legislative farce, it adjourned on November 27 to Golden. The principal inducement for this action, according to the *News,* was that 'board is offered at $6 a week—wood and lights and hall rent free.' The members, however, lost interest in its proceedings, and after 40 days playing at lawmaking the last Jefferson legislature passed away. According to a statement in Smiley's History of Denver:

" 'Jefferson Territory made its last gasp in June, 1861. On the sixth day of the month Governor Steele issued from Denver a proclamation announcing the arrival of Governor Gilpin and the institution of the Government of the Territory of Colorado under the Act of Congress signed by President Buchanan, February 28, 1861. . . . Thus ended the most interesting and picturesque endeavor of an isolated community to establish and maintain within itself a government of and by law that the student of self-government will find in the history of the country.' "

So Jefferson decreased, and Colorado increased—Colorado, the State of which Samuel Bowles prophesied in 1868, that America would go there, "as Europe to Switzerland, for rest and refreshment, for new and exhilarating scenes, for fine and bracing air, for pleasure and for health." This, in spite of the fact that "Colorado offers no wonderful valley like Yosemite, no river breaking through the continental mountains, like the

Columbia; no cataract like Niagara." Still, he felt sure, the verdict of the American people, on more familiar acquaintance, would be that "among these central ranges of continental mountains, and their great companion peaks, would be found the pleasure-ground and health-home of the nation."

Chapter XV

IN AND ABOUT ROCKY MOUNTAIN NATIONAL PARK

Of course the ideal way to see the mountains is from your own automobile. But if this vehicle is not available, railroads and luxurious buses penetrate almost everywhere.

Fortunately local trains in Colorado are slow. They have to be. And the vacation seeker wants them slow that he may enjoy to the fullest extent the country spread before him on a typical Colorado day when the sun shines from a sky that has just enough fleecy clouds to contrast with the snow masses crowning the lofty peaks back on the Continental Divide; when there is enough breeze to give the indescribable graceful sweep to the grass and the grain in regions which receive life from the irrigating ditches.

It is good to whet the appetite for mountain scenery by a preliminary visit to such centers of the irrigated country as Longmont and Loveland, where the sugar beet and the alfalfa have brought prosperity; to Greeley, the center of the smiling land where Horace Greeley sent his colony for its picturesque beginnings that have resulted so famously; to busy, attractive Fort Collins, in the heart of a country where trim red-roofed farm buildings contrast delightfully with a few of the sod shanties that remain from the days of the pioneers, where sleek cattle wander in the hollows as miniature white-capped lakes lure them from higher pastures.

Fort Collins—site of a military reservation in 1864—is the starting point for the first of the northern approaches to the heart of the Colorado Rockies. And it is a fortunate beginning, for it is not only a rarely scenic highway, but it is one of the best samples of mountain roads in a state that offers unusual delight to those who drive a car. In seventy miles it climbs more than a mile, to Cameron Pass, in the Medicine Bow Range. So well was the highway work done by men from the State Penitentiary that, since the opening in 1926, the road has won fame as a high-gear route. The experienced driver who is told that he will not have to change his gears smiles knowingly. He smiles with still greater unbelief when he learns that his chains will not be needed, even in wet weather, because of the heavy gravel surface, which is, in reality, decomposed granite. But soon he is telling the same story to other unbelievers.

This easy road follows the Cache la Poudre River, which received its unusual name from the fact that, back in 1838, a company of trappers, hard pressed by Indians, cached their supply of powder near the banks of the rushing mountain stream. Travelers who go to see the marker commemorating the event, placed by the Daughters of the American Revolution, make a good beginning for the passage that lifts the car by such easy stages from the plains to a mountain pass where snow masses are apt to block further progress as late as the first days of June.

Some of the people who are not familiar with the route by the Cache la Poudre say that there are short stretches along the way where there is "nothing worth seeing." But it is difficult to pick out such points. The fisherman or the hunter will not find them, for this is the heart of some of the best fishing and game country in Colorado. The seeker for a site for a summer home or

for a campground for a night or for days will look his surprise as he hears the statement, for here in the Colorado National Forest the government has appealing offerings for all. Those who think that the best sport is to keep their eyes open to the ever-changing panorama do not find a moment when they can afford to fall asleep. Even the short tunnel where the mountain thrusts out a shoulder to the water's edge seems an unfortunate interruption to the look down at the rushing streams, up at the beetling, spruce-clad walls that sometimes approach each other until the canyon threatens to become a cavern, and rocks arch above the traveler.

Then comes Chambers Lake, nestling by the roadside in Indian Meadows, nearly a mile above Fort Collins, ice-bound until, down on the plains, winter has been forgotten, and even spring is a memory. Then another stream—this time Joe Wright Creek—and Cameron Pass, and more thrilling country northwest to Walden and on through the Medicine Bow Forest to the Jackson Hole Country and Yellowstone Park. Or it is possible, by means of a bit of good road, to reach the Poudre Lakes, in the heart of the Rocky Mountain Park, or to reach the Victory Highway and Rabbit's Ears Pass, and go on west to Salt Lake City. The road over this pass with the peculiar name leads within sight of huge rocks on the heights which stand out like rabbit's ears. There is more justification for this description than for many formations that are pointed out to travelers. But the eyes of the traveler rest longer on the fertile valley watered by the Yampa River than on the peculiar Rabbit's Ears.

But those who are not yet ready to turn their backs on Rocky Mountain wonders return down the Cache la Poudre. On the way they may take a rather stiff climb up Pingree Hill where, after three miles, they gain a

height from which they can gaze on a wonderland of mountain and valley spread out before them.

"Would you like to keep on the route to Fort Collins? Or do you wish to return to the Cache la Poudre?" asked the Man of the Forest, who knew that he was offering a difficult choice.

But the lure of the crags is irresistible, even when another choice is offered as the New Bennett Creek road leads south to the Little South Poudre. No traveler likes to lose the last twenty-five miles of the canyon, and the opportunity of passing through La Porte, the sleepy village that once came within one vote of becoming the Capital of Colorado.

Now come the entrances supreme to the Rockies north of Denver, and the Rocky Mountain National Park. These may be made from Longmont and Lyon by the desirable North St. Vrain Canyon, or by the picturesque South St. Vrain Canyon, or from Loveland, by the famous Big Thompson Canyon. Fortunate are those who can take at least two of these canyon trips, going to Estes Park by one of them and returning by another. But most of those who go to Estes Park will wish to go on and take the 240-mile Circle Tour that will lead them not only into the heart of the Rockies, but will enable them to cross the Continental Divide twice before they return to Denver.

For Estes Park is near the eastern border of the most delectable as well as the most easily accessible of the parks in the Rockies, Rocky Mountain National Park, a reservation of nearly four hundred square miles, favorite hunting ground of the Indians, sought by the pioneers fifty or sixty years ago, made a National Park in 1915, and now sought by hundreds of thousands yearly who wish to spend a day, a week, or perhaps the entire season in an unspoiled wilderness where there are just enough

roads to make access easy, where trails are so numerous and so captivating that months may be spent in tracing them without the necessity of repeating an excursion. What opportunities are presented here for making a study of lofty mountains; of glacial moraines; of canyons, waterfalls, lakes and gullies; of trees at timberline, twisted and thwarted by the winds until they seem to writhe in agony; of meadows hidden away most surprisingly where flowers bloom profusely and grass is green and luxuriant!

What restful beauty there is in Big Thompson Canyon, where the road winds along by a stream that is always enticing, beneath walls that are sometimes precipitous, sometimes receding, but always compelling!

But however wonderful the entrance canyons may be, they are merely the fringe on the wondrous garment of Rocky Mountain Park, a garment bordered with majesty and ornamented everywhere with beauty incomparable.

Estes Park, which is named for Joel Estes, the first settler who built his cabin there in 1859, has made clarion call to Rocky Mountain visitors ever since Isabella Bird came this way in 1873. Then there was no road into the region, and everything seemed against her. Yet she persisted. On September 21 she wrote:

"We never reached Estes Park. There is no trail, and horses have never been across."

But she was undismayed, and on September 28 in triumph, after ten hours of hard riding, she dated a letter from Estes Park. She placed exclamation points after the name of her destination, and she said:

"I wish I could let those three notes of exclamation go to you instead of a letter. They mean everything that is rapturous and delightful—grandeur, cheerfulness, health, enjoyment, novelty, freedom. The ride for glory

and delight I shall label among with one to Hanalei, and another to Mauna Kea, Hawaii."

In another letter she asked and answered a question that will have a pleasant flavor to modern visitors:

"What is Estes Park? The name suggests park palings, well-lichened, a lodge with a curtsying woman, fallow deer and a Queen Anne mansion. . . . For park palings there are mountains, forest-skirted, 9000, 11,000, 14,000 feet high; for a lodge, two sentinel peaks of granite, guarding the only possible entrance. It is unsurveyed, 'no man's land,' and mine by right of love, appropriation and appreciation."

Long's Peak, which lured Isabella Bird for so many days, and satisfied her for months after she found it, breaks on the vision of those who leave Estes Park village and enter the precincts of the Park. Perhaps their first journey is on the road to Bear Lake, one of the comparatively few of the perfect highways within the boundaries. An hour that will long live in memory is necessary for the round trip, with the many glimpses of mountain glory and the access to many trails, including the Flattop Trail to Grand Lake.

But easier and more spectacular access to Grand Lake is given by the new Fall River Road, past Chasm Falls—where waters descend in bounding flood down great walls of rock, only to drop deep in a gorge beneath a footbridge beside the road—and on by admirable turns and altitude-conquering tangents to the summit, nearly twelve thousand feet high. Those who ascend to the pass are reluctant to leave behind them the deep valleys that drop away below the road, but when they reach the summit—through snow banks by the roadside that in late June rise twenty feet above the automobile, marking the path made by the mountain snow plow that removed 100,000 tons of snow to make the passage possible—and

see near at hand the Never-Summer Range, center of a remarkable region recently added to the Rocky Mountain Park, and farther away, the blue Medicine Bow Range, they forget the joy of the ascent for the greater joy of the rest at the top.

Then comes the descent to the Continental Divide, with the Poudre Lakes—source of the Cache la Poudre River—on the right. On before are mountains revealed in sunny splendor at almost every one of the miracle turns and twists in a road that drops thousands of feet to a valley where beavers by their dams have created a charming series of ponds. Then on to Grand Lake, source of the Colorado River, the largest natural body of water in the Rocky Mountains, scene of an annual regatta known as the highest regatta in the world, where yachts sail for a cup given by Sir Thomas Lipton. How often those who look on at the yearly races talk of the reason why the Utes refuse to approach the lake. Once a party of their ancestors, who lived on the shores of the lake, were murdered by the Cheyennes and Arapahoes. Before the fatal battle the squaws and papooses of the Utes were set afloat on a raft, that they might be safe from all harm. But, alas! a squall blew up, and the hope of the Utes perished in the deep blue waters.

Far above the lake is the satisfying Lodge, with its rustic cabins, from whose verandas there is a vision glorious of the peaceful blue lake below, of green trees between, of mountains on the farther shore, and of a dim mystery of many peaks which just peep over other summits to the right. When the sun makes its waters sparkle, or when the moon silvers the surface with its cooler beams, the lake is a marvel. Yes, there is always a marvel in this Park Supreme.

Now Rocky Mountain Park has been crossed. But

only the beginning of its wonders has been told. These must be seen. And what joy awaits the seer!

After Grand Lake comes Berthoud Pass, where the Continental Divide is conquered once more by an engineering triumph that makes mountain climbing a pleasure, and the return to Denver by way of Idaho Springs and Denver's Mountain Parks highways.

After seeing Rocky Mountain National Park it is difficult to believe that the country north of Denver can offer anything more worth while. But there is yet another highway into the mountains in this favored region, a highway short but glorious. This leads from Boulder, the beautiful university center in a sheltering pocket of the mountains, whose proud boast is its possession of ten thousand acres of municipal mountain parks and watershed areas. The park lands include the Red Rocks, under whose spires and pinnacles the first settlers of Boulder camped in 1858, and the peculiar mountain with the flatiron rock faces—where the majestic Royal Arch delights the visitor—and the height reached by the Flagstaff Scenic Highway. This road climbs 1600 feet in a little more than three miles, to the vantage point from which a far look may be taken sixty miles across the plains which the road on the base line of 50° cuts like a knife, straight as a ruler can make it except where it is broken by an intervening lake. And when the back is turned to the plains the prospect is even more generous, to the range where for a distance of sixty miles from James Peak on the south, the mountains average thirteen thousand feet. Over all towers Long's Peak, with its 14,200 feet of altitude.

Yonder are the glaciers from one of which, Arapahoe Glacier, Boulder receives its water. "The only city in the world owning a glacier," is the boast of those who speak of Boulder's cold storage plant.

When the eyes are suffered to drop from the region of Arapahoe Glacier they linger on such a display of vegetation as few city parks can boast—trees of varying shades of green, including the Douglas fir, whose tops look like huge bouquets with their clusters of peach pink new growth tipping every branch; bushes of wild currants, clusters of the holly-like Oregon grape with its gorgeous yellow blossoms, the wild phlox, so like the Sweet William; and everywhere, covering rocks and roots, the trailing kinikinik.

Panorama Park is only one of Boulder's claims on the traveler. Perhaps the greatest of these claims is its own canyon road back into the treasure-house of the mountains, eighteen miles by the side of the milk-white glacial stream, Boulder Creek. Here is another perfect highway, built by convicts, some of whom said that they took comfort in the thought that their toil was to give lasting pleasure to the state and the nation. High canyon walls drop from time to time to give glimpses of heights beyond. Once they break to let in a side canyon where waters make the dizzy leap at Boulder Falls—also owned by the city—in an amphitheater of rock. Far above the falls a radium mine sends its riches to the valley.

Here and there the main canyon affords glimpses of the mountains on whose side cling the living glaciers. These are not so far away that they cannot be reached by easy climbing. But first come the last stretches of the Boulder Canyon road, around, then high above Nederland Lake, the huge body of water more than one hundred feet deep at the massive dam, used for generating hydro-electric power. Beyond the lake lies Nederland, now a sleepy village, but during the War "the Tungsten Metropolis of the world." For during those hectic days, Boulder County proudly boasted the production of three-fourths of the world's tungsten.

In the Garden of the Gods, Colorado

Pike's Peak Auto Highway, Colorado

Pike's Peak, Colorado

It is by no means uncommon for visitors who planned to return to the plains from Nederland to go on north to Raymond and the South St. Vrain Canyon into Rocky Mountain Park, pausing by the way long enough to go to Chittenden Falls and Hellen Falls, which are so distinctive that even those who are becoming surfeited with waterfalls like to gaze on them. The distance to Ward is short, but the stay there may have to be long by reason of the lure of the glacier country that may be reached from there by easy trails from a road where cars can go with safety and comfort. Most of these glaciers are on the eastern side of the divide, but that most recently discovered, the Fair Glacier, is on the Pacific slope. This half-mile-wide, majestically moving body of ice glides at the rate of thirty-five feet a year down the slope of Hell Hole, beyond lofty granite pillars that seem like a gateway to mysterious Crater Lake and then to the advancing relic of the ice age far above.

Perhaps the best known of these glaciers is Arapahoe, on the slope of Arapahoe Peak, which feeds the chain of lakes, Boulder's peculiar property. The South Arapahoe peak is a popular resort of the Rocky Mountain Climbers' Club. Those who make the difficult but altogether practicable climb to the summit will rejoice to find there one of those brass plaques so familiar on many heights which point unerringly to the mountain peaks and the lakes within the range of vision. Those who take for granted the presence of such markers will appreciate them more when they learn that the placing of this particular marker by the club called for permits from the United States Geological Survey, the United States Forest Service, and the Colorado Geographical Board. Then came the ascent of the mountain by skilled engineers who were to make surveys and drawings. The first attempt was a failure because of a blizzard that

endangered life. A second attempt also was a failure, again by reason of a snowstorm. But on October 3, 1927, three men, with surveying instruments, compasses, and drawing boards succeeded in reaching the summit. A winter's work followed, then came another ascent to test the accuracy of the drawings. All this before the plate could be made, and laboriously placed in position!

This glacial country, which has not yet been fully explored, was one of the wonderlands of the Utes. These primitive men had a legend of the Arapahoe Glacier, which has been told by Warren E. Boyer of Denver, in his "Vanishing Trails of Romance." The Arapahoes possessed an invaluable wish charm, a string of beads surrounding a piece of carved tusk.

Of this the Utes tried to gain possession. On this glacier the braves of both tribes battled for the treasure. One of the Utes succeeded in getting it into his hand, only to carry it with him down into a crevasse from which his body was not recovered. The eager Indians calculated that, in one hundred and fifty years, the glacier would have moved forward more than four thousand feet, and the body of the treasure-bearer—if it had lodged on a shelf of ice, as they hoped—would be deposited in the morainal lake at the foot of the glacier.

Bright-Star, maiden of the Arapahoes, had heard the wise men of the tribe discussing these things with her father, Blue-Cloud. They told how the Utes also were waiting for the appointed time of the coming of the long-dead treasure bearer. She knew, too, that her father was under sentence of death at dawn, because he would not consent to the attack on the Utes, for which the younger braves were eager.

If only she could gain possession of the long-lost charm! Then she could save her father's life, and her tribe would possess once more the ancient treasure. Per-

haps she could find it by moonlight that very night! She knew that the braves of both tribes would fear to approach the glacial lake before daylight, lest they anger the spirit of the departed Ute. She, too, feared the spirit, but her longing for her father's salvation was greater.

So she went to the glacial wall, taking with her a tomahawk, with which she proposed to chop away a discolored portion of the ice which she had noted two days before. Time was short, so she worked with feverish energy. At last she saw a hand still holding the charm for which he had given his life. She grasped the treasure, scaled the rocky slope from the lake, then made the wish that a white cloud would take her to the canyon where her father was to die. At once she saw a white horse, ridden by her lover, Not-Afraid, one of the Ute warriors. Though this was her first sight of a horse, she climbed behind him, and rode away toward the canyon, while Not-Afraid told her he had taken the white-winged beast from a company of white explorers.

When they reached the brink of the canyon the death dance had begun. Bright-Star cried out that she had the lost talisman, and that she would give it up if the life of her father was spared. Fear of the strange white horse led the Arapahoes to send Blue-Cloud for the necklace. Then Bright-Star and Not-Afraid sailed away on the charger. The Utes received them gladly, for they considered the horse a greater gift than the charm yielded up by the glacier. In the meantime Blue-Cloud, possessing the talisman, became once more a great man among the Arapahoes.

"Don't you believe it?" asked a guide of a visitor to the glacier. "Look up! See that cloud? It is the white charger still bearing Bright-Star and Not-Afraid!"

Not even the horses whose forbear, according to the

legend, was the white charger of Not-Afraid, can go to and fro in Colorado at will. The stern mountain barriers determine the route that can be taken by visitors and residents. Sometimes ludicrous blunders are made by those who are not familiar with the State. For instance, the story was told in Colorado of a census official at Washington who, noting the delightfully rectangular boundaries of the State, calmly proposed to divide it into four census districts, each as methodically accurate as the boundaries of the State! Fortunately, there was at hand a man who knew mountain contours as well as the boundaries, and he advised the eleven census districts which were adopted.

Mountain passes are a controlling factor in all such divisions. The discovery, and, in a number of instances, the struggle for the control of passes, is a picturesque part of the history of Colorado. When the Union Pacific surveyors were seeking a route, they found a pass almost directly west of Denver. Unfortunately for Colorado, the final decision was to carry the road over the mountains north of the state boundary. This left Colorado without a transcontinental railway, except for the Santa Fé, which cuts across the southeast corner of the State, entering New Mexico over Raton Pass. The story for possession of this route of the Old Santa Fé Trail, between the Santa Fé and the Denver and Rio Grande railways, like the still more exciting narrative of the war between the same companies for the Royal Gorge, is one of the thrilling tales of railroad building days.

Denver was not satisfied to remain without a transcontinental line of its own. The desires of the city were given expression during many trying years by David H. Moffat who lived to see his railroad, the Denver and Salt Lake, built as far as Craig, in Northwest Colorado.

The more than two hundred miles of this railway line should be followed by every visitor to Colorado. It is paralleled most of the way by good roads, but here is at least one instance where it is better to use the railway, unless it is possible to make the trip by both routes.

Moffat was a courageous man. He was not deterred by thought of the long time required for building over the difficult Continental Divide. Those who were responsible for the Union Pacific realized that here was the better route, but they were building against time, and they feared the delays inevitable to the choice of an attack on the heights west of Denver.

The breath of the traveler who takes this fourth route into Colorado's northern wonderland is taken away as he thinks of the boldness of the engineer of the Moffat road—so called in affectionate memory of the man who never lost heart even when faced by the greatest difficulties. Many a road builder would be tempted to attack his difficulties gradually. Yet here is a route that made necessary at the very beginning turns and twists and high climbing by long and involved spirals that would break the heart of a man accustomed to the easy conquests of the plains.

But what delight the necessity for the difficult conquest of the Divide gives the traveler who, for the first time, takes his place in a Moffat train out of Denver! A few miles of plain for a running start. Then up, up, up! Nearly five thousand feet in forty miles! Who can forget the vista of the receding plains as the climb continues! And the gorges far below, first South Boulder Canyon, then Coal Creek Canyon, with its miles of flumes in the depths and perched on the sides of the mountain, relic of placer mining days. And tunnels! There are perhaps thirty of these in far less than that number of miles. Most of them shut out a vision of untold gran-

deur, but fortunately in many cases the tunnel mouth offers a view still more entrancing. Then comes the biggest tunnel of all, more than six miles through the granite rock of the divide, so close to James Peak that sometimes the road is said to pass under the mountain.

But not for many years came this realization of the vision of the empire builder. As a temporary expedient the road conquered by more than twenty miles of switchbacks Rollins Pass, long the favored route across the mountains of Utes, Arapahoes, and Cherokees. For the mountain Indians this was the way to the plains where the buffalo herds were found, and for the plains Indians it made access easy to the lodge-pole pines, which were in such demand for tepee poles. The mountain Indians warred with the tribesmen from the plains, and many savage battles were fought close to the line of the railroad.

The route of the railroad over the summit was a makeshift. Not even two miles of snowsheds could keep the road open in winter. Frequently no trains ran for a month or two. Moffat and those who believed in him fought for a tunnel which would avoid fifteen hundred feet of the difficult climb. In spite of all opposition they built the passage, but not until after the formation by the State of the Moffat Tunnel District, which included the territory that would benefit most by the success of the railroader's dream.

That the entire country is interested in the final success of the great project—it was opened for traffic early in 1928—is plain from a mere reading of figures about the country which is given an outlet by the road. These may sound ambitious, but authorities say they are trustworthy:

"Northwestern Colorado alone has sufficient high grade coal to supply the entire United States for 1,500

years; and its oil shale beds will produce ten times the amount of oil yet taken from all the oil wells of the United States. Northeastern Utah can duplicate this production. Enough ammonium sulphate can be produced as a by-product of the Colorado shale beds to fertilize all the farms of the Mississippi Basin. Directly tributary to the Moffat Tunnel are: (in Northwestern Colorado) 3,900,000 acres of vacant public land, open to entry, and 353,000 acres of state school land, of which 178,000 acres are underlain with coal; (in Northeastern Utah) 1,898,000 acres of vacant public land, and unlimited quantities of solid hydro-carbons; (in Northwestern Colorado and Northeastern Utah) 11,000,000 acres of United States Forest lands constituting, under government regulation, a permanent reservoir for production of timber and grazing animals."

When the train emerges from the West Portal of the tunnel, it is just above the Victory Highway, which passes over the mountains near by after a rapid and glorious climb up to Berthoud Pass. For some reason this route over the mountains was not used by the Indians; from the beginning it has been a white man's route. After crossing the mountain at 11,309 feet, the highway follows a route of its own to Denver. But to the northward it keeps, most of the way, close to the railroad line.

Both railway and highway pass soon through Sulphur Springs, where the Indians were accustomed to go for the healing waters. All this Middle Park Country, to the summit of the divide, was Ute territory until 1878, but the Indians sold Sulphur Springs in 1864, though they continued for many years to visit the Springs.

At Sulphur Springs both railway and highway follow the young but mighty Colorado River which—first at Byers Canyon, then at Gore Canyon—has cut its way through great gorges that are a prophecy of what is to

be the fortune of the stream in Utah and New Mexico. These canyons are comparatively short, but the lofty walls above the waters which cascade over mighty boulders make them notable.

The stiff climb through the country of the extinct craters is second only to that at the Moffat Tunnel, though many think the prospects afforded during the climb are more notable. Far below is the Colorado; to the west are the rugged snow-clad Flat Top Mountains. Some of the elevations in that range are worthy of names, but Colorado is so wealthy in high mountains that no one has given names to these giants. The time may come soon when the omission will be supplied, as has been the case with a lofty, distinguished mountain in the glacier regions of Boulder County; this is now known as Lindbergh Peak.

Who can forget other wonders into the midst of which the railroad soon passes—Egiria Canyon, so far above the waters of Egiria Creek that they are lost in the depths, or the beautiful Egiria Park, on the divide between the Yampa River and the Colorado River. Some insist on calling the Yampa River the Bear, thinking that this is the meaning of Yampa. But the real name is that of a root something like the sweet potato, exceedingly popular with the Utes. Just as foolish are those who say that a curious rock formation near Tapanos was called by the Indians "The Sleeping Lion." True, it does look—if much imagination is used—like an African lion. But it certainly does not look like a mountain lion. And how did the Utes become familiar with the lion of Africa?

Not far from the questionable lion, by the side of the highway, a relic of stage-coaching days calls for preservation—a substantial two-story log cabin, long used as

a tavern and relay house. Now, windows and doors gone, it tells a story of departed grandeur.

"That house was a boon to me one night when I was overtaken by a blizzard," said the Man of the Routt Forest. "I was glad to find the shelter of the windowless rooms."

The Man of the Forest was then on his way to his headquarters town, Steamboat Springs, which is destined some day to be one of the great resort cities of the United States, not only because of the surprising beauty of its surroundings, but by reason of the scores of mineral springs which are said to duplicate the various health-giving waters of Europe. The rather unexpected name of the town is accounted for by the fact that the escaping steam from one of the springs gives forth a sound like that of a steamboat whistle.

Within three miles of Steamboat Springs, up Fish Creek, which enters the Yampa near the railway, a glen leads suddenly to a precipice where the waters of the creek throw themselves down one hundred and fifty feet to the lower level. "I agree with you that they are glorious falls," said the Man of the Forest. "But I remember them better because, up there on the height, where the thunder of the water was my lullaby, I passed the night of a blizzard that kept me from reaching Steamboat. I had come on my skis to the place where I could see the lights of home, but I did not dare go on until morning. Up there on the rock I camped by my fire, and in the morning I went home."

"Was it cold?" he was asked.

"Not very," he replied. "I doubt if the thermometer dropped under thirty degrees below zero."

And the man to whom hardship was a commonplace wondered why his companion thought the remark strange!

More credit should be given to this story than to the action of a mountain hotel clerk, not far away, who told a guest of a great disappointment in his youth. "I was working for a scholarship in the University of Pennsylvania," he said. "In the final examination a man in front of me asked for help. Thoughtlessly I gave it to him, and he won the scholarship by a fraction of a per cent! He said to me that since he had won by my aid, the scholarship really belonged to me. I told him that we were both debarred from talking of the matter to the authorities. My aid had been a boomerang; I learned from it a lasting lesson of absolute honesty in all my dealings with others."

As the clerk spoke, he started. "Those three fishermen will be angry. I promised to call them at a quarter past seven, and it is now twenty-five minutes past the hour."

Then he went to the clock, turned back the hand ten minutes, then used the phone to the rooms of the fishermen. "Quarter past seven!" he told them.

Yet he had learned, in young manhood, a lasting lesson of absolute honesty!

Chapter XVI

IN THE SAN ISABEL NATIONAL FOREST

"If you can see but one of the National Forests in Colorado, see the San Isabel."

"Why?" the question was put to the Man of the Forest.

"Go to San Isabel, and the question will be answered," was the assured response.

Some people think a day in this inspiring area will be sufficient. Usually, however, the visitor of a day longs for another day, a week, or even a month. And the experience of those who have sent tourists into San Isabel is that they may insist on returning again and again.

"I have a patron who has come every summer for five years," said one who has succumbed to the charm of this great forest until he can think of little else. "He makes a western tour each summer, but San Isabel must have the last week of his vacation period. "I want to go home with its mountains and valleys, blue lakes and cascading trout streams so fresh in my mind that they will be with me until the time comes for another visit."

Yet San Isabel was comparatively unknown until a few years ago. Even now many insist on keeping to the main roads in the forest; thus they miss some of the most glorious scenery in the United States. Does that statement sound extreme? The only answer is that of the enthusiast already quoted: "Go to San Isabel."

Where is the area of which a visitor said, "Here six National Parks are combined in one"? It stretches from

the Arkansas River, with its great Royal Gorge, on the north, to Trinidad and Alamosa, on the south, and from Pueblo on the east westward for eighty miles—an area of more than 650,000 acres.

Here are mountain ranges supreme—the Sangre de Cristo, the Greenhorns, and the Spanish Peaks, with a number of mountains higher than Pike's Peak. Here are lofty lakes, superb forest areas, and sand dunes that out-Sahara the Sahara and would be the mecca of directors of moving pictures if they had discovered their possibilities. These sand dunes, easily accessible, rest—if what is ever shifting can be said to rest—under the protecting wing of the southern Sangre de Cristo, but twenty-five miles northwest of Alamosa. And they are no mere pocket area; they measure 100 square miles, and they vary in height from 200 to 1000 feet.

The passenger on the train of the Denver & Rio Grande Western Railway which passes through the Royal Gorge, north of the San Isabel, or who leaves the train long enough to accept Canon City's urgency to view the gorge from above, perhaps crossing the chasm by the lofty highway bridge so recently constructed in a most advantageous location, will appreciate the story of the heroism and the gigantic achievements of the men who blasted the way for the railroad through these mountains. It has been told and retold, but that story is ever new to those who thread their way through the canyon where the railroad runs.

One of the early accounts of the building of the Denver and Rio Grande by Ernest Ingersoll, a book out of print and forgotten, tells a story that is too good to let perish. Its merit lies not in its veracity—that may well be doubted!—but in the fact that exaggeration was the evidence of the narrator's appreciation of tremendous achievements. Perhaps his exaggeration will help the modern traveler:

"When we was blastin' the Ryo Grand railroad through the Royal Gorge the boss sez to me, sez he, 'Hyar you, do you se that ere ledge a thousand feet above us, stickin' out like a hat brim? That'll mash a train into a grease spot some day, if we don't blast it off.'

"So we went up a gulch, and clum the mountain an' come to the pressipass, and got down on all fours, and looked down straight three thousand feet. The river down thar looked like a lariat a runnin' after a broncho. Thar wuz a crevice from whar we wuz, an' we sorter slid down into it, to within fifty feet of the ledge, and then they let me down on the ledge, with a rope an' a drill. But when the boss said he would throw down fifty pound of dynamite for me to catch, I told him to haul me up. I told him I didn't fear the blowin' up so much ez the comin' down. If I should miss comin' onto this ledge thar wuz nobody a thousan' feet below to ketch me, and I might get drownded in the Arkansas, for I couldn't swim.

"So the boss had me hauled up. Then he discharged me. I set down behind a rock an' watched the three men he let down on the ledge. Them fellers ketched the dynamite all right and put her in, an' lit their fuse, but before they could haul 'em up she went off. Great guns! 'Twas wuss'n forty thousand Fourth of Julys! A million coyotes an' horns and gongs ain't a sarcumstance. Th' hull gorge fur ten miles bellered and bellered, an' kept on bellerin' wuss'n a corral o' Texas bulls. I foun' myself on my back, lookin' up, an' the las' thing I seed wuz two o' the fellers a whirlin' clear over the mountain, two thousand feet above. When we got courage to peep over an' look down, we found that the hat-brim wasn't busted off at all. But a rock ez big ez a good-sized cabin had loosened, an' hed rolled down on top of it. Pretty soon we heard a voice call from the ledge, 'come down an' get me out.'

Then we saw that the ledge had split off a leetle, 'n that chap fell into the crack, 'n' the big rock rolled onto the ledge an' sorter held him thar. We weren't slow about gittin' down. We bust all our crowbars tryin' to move that rock from the ledge. Then I put a rope around the middle of the man in the crevice, climbed up to a pinnacle fifty feet above. Next they blew open the ledge, kinder soft an' easy like, so ez not to hurt the pore feller.

"But when that blast came the hull canyon wuz full of blue blazes, flyin' rock 'n' loose volcanoes. I wuz sort o' dazed an' blinded like. The rope tightened round my middle, 'n' I seized onto it tight, an' tried to haul the feller up. But nothin' come; the rope on me only got tighter. I looked down an' there wuz nothin' below me. The ledge wuz blown clean off, 'n' the canyon seemed 'bout three thousand feet deep. I looked up, an' thar on a pinnacle a hundred feet above me wuz the feller we had blasted out from the ledge; he had been lifted way above me, an' he wuz pullin' me up. When he got me up we tried to decide which end of the rope each of us wuz on. But we had to give it up. I can't tell to this day. I can only tell what wonders we did when we put the Ryo Grand through this gorge."

After seeing the Royal Gorge the traveler is ready to go on Canon City's Sky Line Drive—built on a hog back which enables the rider in an automobile to look down from eight hundred to a thousand feet on the plain and the busy town below, as if from an airplane. He will be surprised to learn that only a few miles to the south there is a canyon in some ways similar, but in the opinion of many, more varied, more surprising, more compelling, more majestic than the Royal Gorge. If a railway passed through its depths the Oak Creek Canyon would be one of the famous spots in the Rockies. Now, however, comparatively few, even residents of nearby Canon City,

Florence, or Pueblo, know of its existence. In the author's party were two residents of long standing in Pueblo who looked in amazement at what they saw. "Why have we not heard of this awe-inspiring spectacle?" they asked. Even the map of the San Isabel Forest—and Forest Service maps are the most helpful companions in the Western country, for they list so many things that are unmentioned elsewhere—does not point out this canyon of canyons. This outstanding marvel is immediately south of the Royal Gorge State Game Preserve, and may be reached either by a road from Canon City or by a highway from Florence, the oil town, that passes through the coal mining town Rockvale—natives call it Stonytown, for obvious reasons. These roads join nine miles from Florence, after mounting high above the surrounding country, and affording a spectacular vision of mountains and plain that is worth the trip, if there were nothing beyond. But there is! On past precariously located mountain ranches, in between Locke Mountain and Cortelyou Peak, in a five-mile stretch where the road winds by colorful rocks, cliffs, crags that reach high to right, to left, in front, behind. The traveler is not in a narrow gorge, but in a spacious valley from which the crags recede as do the terraces of the new skyscrapers. But where else in the Rockies are such monumental rocks, combined with coloring so striking, structures so varied and fantastic?

Perhaps the traveler desires a quieter canyon. He will find it, about twelve miles from Florence, most unexpectedly, in a glade that leads off from North Hardscrabble. A forest ranger has his little home down in the depths. And what a treat is in store for his guests who pass down to a little creek flowing through a glen where primitive nature reveals herself in wondrous beauty! A few minutes after emerging from the glen his attention will be

attracted by a wayside stone, protected by a grill, on which Kit Carson—"the Daniel Boone of this region," in the words of a native—on a day when he was making one of his periodical trips this way along the nearby creek bed, carved part of his name, "Kit C." as well as that of his Indian consort Joanna. The weather is effacing the letters cut by the picturesque pioneer so laboriously that he decided not to spell out his surname.

After the canyon and the glen, it is a good thing to go on to West Cliff and hillside, then up a delectable slope to the resort of the Rainbow Lake Club—generously the members permit others less fortunate to find entertainment there—to which the attractive name The Flower Garden has been given. The reason for this name is found, not in cultivated attractions, for those in charge realize, fortunately, that they cannot expect to improve on nature, but in the delightful rustic cabins, each of them named after a mountain flower, with furnishings that carry out the color scheme of that flower. After dinner the fortunate guest may secure permission to go up a private mining road which climbs more than two thousand feet in a little more than four miles, to dainty Rainbow Lake, tucked in a pocket under the final upthrust of Eagle Mountain, nearly 14,000 feet in altitude. The road goes on two miles to the mine, but it is not practicable for pleasure cars. The lake is lure sufficient here, with its 55 acres of water reaching to a depth unfathomable even by a 1200-foot line. There is no visible outlet, but a stream a mile (by road) down the mountain comes out mysteriously from the earth.

But let us begin a more systematic study of the new wonderland of San Isabel. Pueblo is a convenient gateway. Soon after leaving Colorado's sturdy industrial city there is a vision of mountains that are so different from those farther north, for they are covered with

attractive vegetation. There are mountains to west, to north, to south, even down to the Spanish Peaks, the mountains which—so tradition says—were the first seen by Coronado when he came up from Mexico on his exploring expedition. The Indians called these distinctive mountains "West of the World." They declared that here was the residence of the god of the rain. The Spanish called them The Two Brothers. Why not go back to one of these picturesque names?

Close to the Front Range, the first mountains reached, nestles a pretty little village called Rye. Near by is a much smaller center called Crow. "They must have been named by a patron of whisky," one visitor remarked. The truth, however, is that Crow is reminiscent of the Indians who foregathered in that region, while Rye was named by a woman who was lonely as she thought of her New York home.

Rye possesses a canyon all its own—a delightful gorge cut deep by a little stream that seems too puny for such a supreme effort. On the heights near by is a very perfect natural bridge. These are two of the attractions that led one of the early visitors—and that means a visitor of six or seven years ago—to come back and make her home in Rye, that she might be within reach always of the San Isabel that had won her heart.

Soon a forest road leads through a combination peculiarly attractive in San Isabel—the light green aspen and the dark green conifer. What tender nurses these aspens are! After a forest fire—and friends of San Isabel rejoice that this choice area never has been visited by a forest fire of great size—the aspen takes root quickly and supplies a cover in which, later, the conifer takes root. Gradually the spruce and the pine grow sturdy until they are able to do without the nurse's protection, and they dominate

the scene. But in the meantime what a partnership they make!

Tempted by a rough road that led into such a forest, one little party of eager visitors turned aside in spite of mud and a steep road. Soon the car was in trouble which threatened to become still greater when a herd of cattle hurtled by. But instead of disaster they brought release, for two sturdy cowboys dismounted and added their strength to that of the engine, and the automobile was free to go on its way. Roads like that are few in the San Isabel, for the Forest Service as well as the State and the County are making transit easy from north to south and from east to west.

"Look! Look!" became the monotonous call. Up, down, back, forward the eyes were drawn constantly; there was an embarrassment of riches. Everywhere valleys and mountains made insistent appeal. But when the road crossed the divide and entered Davenport Gulch eyes were opened still wider. "We don't call this a canyon; we are satisfied to say it is a gulch," said one who knew the country. But it might well be called a canyon, by reason of the deep and varied passage for a stream, far below the great aspens that have forgotten their usual spindling trunks.

Then comes what even the natives of Colorado are willing to call a canyon, Squirrel Creek Canyon, the State's most densely forested canyon. The rocky walls far above are clothed with green; the few trees that cling to the cliffs in most places have given way to a thick cover that almost hides the rocks. Once a turn shows a marvelously perfect oval mountain, whose side is covered with most symmetrical pyramidal spruce trees.

That canyon is indescribable. Ten miles of dainty surprises, of beauty supreme. Fortunately, at one point, the road leaves the brink, so giving encouragement to

the visitor to alight and climb down stream for a mile over a track made easy by Boy Scouts, guided by Forest Rangers; their rustic bridges and well constructed trails lure those least inclined to tramping to a ramble down a stream that drops rapidly to a place where the road, after a much longer stretch, joins the Boy Scout trail.

Soon a sign post tells the name of an attractive spot—Second Mace. The Man of the Forest was asked for an explanation.

"Not far away, near the beautiful vale of Beulah, where Pueblo residents seek summer sanctuary," he explained, "once lived a Mexican outlaw whose name was Mace. The place where he took stolen cattle was known as Mace's Hole; later settlers did not like the unsavory name, and they called it Beulah. But in the days when the original name survived, the settlers tried many times to capture the outlaw. Mace was accustomed to keep a lookout from Signal Mountain, over yonder. Thus he learned of the movements of his would-be captors, and drove the stolen cattle to higher ground, at the place that became known as Second Mace. At length the settlers caught him before he could get away, and his depredations ended."

Before the coming of Mace the Utes found delight in the country about Mace's Hole, for this was a great hunting country. Their enemies looked with envy on their hunting grounds and sought to surprise them there. It was necessary to maintain watchers on the Signal Mountain used by Mace.

But that height was used by a third watcher. This was General Meade, who had been told to drive out the Utes. On Signal Mountain he gave messages that were interpreted on other heights farther north, including Pike's Peak, and even into Wyoming. As a result of the

watchfulness of the soldier, the Utes were compelled to leave for other hunting grounds.

One of the striking features of this high country is the road up the Bigelow Divide, where the curves describe a perfect figure eight. Not far away is a homesteader's claim—for even at 9000 feet elevation there is cultivation, iceberg lettuce being the chief crop. The homesteader still lives in the original dugout on the hillside. But he is building gradually a fine new home. For several years he has been adding to it as time permitted. Some of these days he will forsake the dugout, and another object lesson will have been given of the profits made from the productive Colorado mountain soil by the persistence of those who go into the hard places to pave the way for future generations.

Bigelow Divide separates North and South Hardscrabble Canyon. The names need little explanation. But the former is especially notable; it is smashingly spectacular. How the rocks have been upheaved! The road in the canyon, blasted from the rock, cost $37,000 per mile.

But the canyon is most notable because, to one ascending it, is afforded the first view of the matchless Sangre de Cristo Mountains. At first the lofty snow-clad peaks peep over the forest. At length the mountains in all their glory are disclosed—one hundred miles of supreme mountain majesty, the world's longest range of lofty mountains. There they stand, like soldiers in a row, like the work of engineers who have designed a perfect succession of monumental structures. But what engineer could have planned such perfection? There is but One!

Is it possible to forget the first sight of what is not only the longest, the straightest, the ruggedest, the most spectacular range in America, yes, in the world? And is it possible to see this one without longing to return for another lingering look?

A traveler who is familiar with mountains in all parts of the world has said:

"I have seen the rugged Canadian Rockies. I have seen the magnificent Tetons. I have looked upon the splendor of the mountains of Glacier Park, far back of the beaten trails. But nowhere have I seen splendor like that of the Sangre de Cristo!"

How many peaks are there? Count them! The visitor gives up. He can pick out one and another, and then will wonder why these are preferred above others. He can fix his eyes on the lordly Sierra Blanca, sculptured by an Omnipotent hand, with snow to the summit, and a glacier reposing on its bosom. On the other side of this giant lie the sand dunes, as mighty in their way as their mountain neighbor.

In 1866 Bayard Taylor wrote of this view of the Sangre de Cristo Range, and the mountains reaching far away to Wyoming—150 miles of mountain glory: "In variety, in harmony of form, in effect against the dark blue sky, in breadth and grandeur, I know no external picture of the Alps which can be placed beside it. If you could take away the Valley of the Rhone, and unite the Alps of Savoy and the Bernese Oberland, you might obtain a tolerable idea of this view of the Rocky Mountains."

Until comparatively recently, these Sangre de Cristo heights were thought unscalable, but in 1921 members of the Colorado Mountain Club succeeded in ascending some of the most forbidding slopes. They declare that there is in America no more inspiring or difficult mountain range.

Over yonder, on Marble Mountain, at an altitude of more than thirteen thousand feet, there is, in the face of the cliff, a mysterious cavern. Since its discovery daring mountaineers have tried to solve its mystery. But the climb is difficult, and there are but a few weeks in summer

when it is accessible; as late as August first the entrance is apt to be blocked with snow and ice. Even those who approach it can enter only over ice that still clings to the floor, and they must creep—really worm their way—over the floor. Suddenly the floor falls away into nothingness; a pit is there to which no bottom has been discovered. Members of the Colorado Mountain Club have let down men fastened to long ropes without result; they have thrown stones into its depths, but there has been no sound of alighting; they have dropped flares down, but these have disappeared.

Always the wind is blowing through the cave. Does this mean that there is another entrance, far away in the mountain side? A curious thing has been noted: when the wind's direction changes without there is no change within the cave for five or six hours. Then the cave wind changes, and blows in concert with the wind outside.

The first man who entered the cavern found a curious ladder which reached across one side of the chasm, where a side passage leads off. Who made the ladder? No modern nails held the rungs, but hardened thongs. More, over the entrance to the cavern, a cross was discovered carved in the black marble.

Do the ladder and the cross mean that the Spaniards found the cavern? Did they have some secret reason for entering the difficult opening? Did they have a mine there? The question has been asked. There is no answer.

But greater riches than those of any fabled mines may be seen when the sun sets on the Sangre de Cristo range. How red the peaks become! And how the splendor is lent to sky and mountains, to north, to west, to south, until it is difficult to tell just where the sun has disappeared! No wonder that one Spanish explorer who saw them thought of his crime in slaying a companion, and exclaimed, "Sangre de Cristo! Blood of Christ!"

Long's Peak, Rocky Mountain National Park

Grand Lake, Rocky Mountain National Park

Inland Basin, Rocky Mountain National Park

Beaver Dam in Hidden Valley, Rocky Mountain National Park

and was unhappy until he came to what seemed to him the miraculous white cross on the mountain he named "The Mount of the Holy Cross." He was forgiven for his crime. This is at least a pleasing tradition.

The early morning, too, is a favorite time to view the range. The spectacle is marvelous if the sun rises clear, and the mountains of snow reflect the first rays. There is beauty also when the mists shroud the peaks. Slowly the mists rise, revealing at first the loveliness of the green base line, then the forests above, then the snow on the higher ridges. The beholders think of the oriental veiled bride, adorned for her wedding, gradually revealing her reluctant but transformed face.

More beauty, but of a different sort, awaits those who go south over Promontory Divide, then turn toward the mountains, passing to the north of Sheep Mountains, then to the easy highway that climbs La Veta Pass, and descends by an eight-mile slope. How the Spanish Peaks, to the south, disclose new grandeur at every turn of the road!

And those peculiar formations that lead out from the Spanish Peaks like spokes from a wheel—lofty ridges of mighty rocks, appearing, disappearing, but always dominating the country! The road leads through gaps in these singular outcroppings, sometimes miles long, which tell of some geologic upheaval when horizontal ledges of rock became vertical, and were given the colors of the rainbow. Perhaps the most spectacular of all is The Devil's Staircase—a series of steps that no being conceived by man could mount. Some may think of the uplifted rocks of the Garden of the Gods as they look on these marvels, but these are mightier, more wonderful.

Another pass—this time Cucheras, 10,000 feet in altitude. The upward road reveals great sweeps over the

country to the north, past peaks by the way, to the snow-capped summits far to the north.

The downward road, too, has its offerings—now the far-off mountains of New Mexico. But these are so different from the mountains to the north. The lofty Rockies are no more. Yet there are delectable mountains beyond—ridge after ridge of them, stretching away to the horizon, a hundred miles distant.

Then comes Stonewall Gap, a mightier rock upheaval than any of the spokes from the Spanish Peaks. This stupendous formation comes down on one side of the road "like the Leaning Tower of Pisa," one has said. The coloring is superb. Across the road the formation climbs another ridge, and continues for miles.

The southern limit of the San Isabel has been reached. But not a tithe of San Isabel's wonders has been told.

Nor has a hint been given of the hospitable people of the country. There is the colored bootblack of Canon City, a typical old Southern darky who asked his patrons to register that he might send each a Christmas card to remind of the minutes spent in his tiny shack. Then there is the delightful wife of a rancher near Lowell Canyon, who has lived there since 1871, when the Indians were daily visitors in the home. Asked if she does not find her dwelling place lonely, she replied, with shining eyes: "These mountains? Why, I find new joy in them every day."

Of still another sort was the old prospector and trail maker, usually so generous in his attentions, but on one special day as close-mouthed as a clam, because he learned that the traveler who addressed him had dared to see one of the region's choicest spots by means of a road for which not he, but some one else had been the pioneer!

The people of Colorado are as delightful as the scenery is glorious and unusual.

Chapter XVII

AMONG THE MARVELS OF THE SAN JUAN VALLEY

"If you are pressed for time in Southwest Colorado take the Denver & Rio Grande Western Railway, narrow gauge, from Walsenburg to Durango, and then find your way north to the main line at Grand Junction," came the advice from a friend in Colorado. "You will discover that a majestic railway route. Soon after you leave Walsenburg you begin climbing. First comes the La Veta Pass, which lifts the cars to a height of more than 9,000 feet. And what a tremendous prospect of the country is spread out below you! But this is only the beginning. The line rises again until it reaches mighty Toltec Gorge; then it continues to mount until at Cumbres Pass, the altitude is more than 10,000 feet. Seven hours of almost continuous ascent, whose every moment provides satisfaction, excitement, and wonder! But if you can spare a few extra hours, it would be better to take the highway. From Alamosa this leads by the side of the young Rio Grande to the summit of Wolf Creek Pass over the San Juan Mountains. The altitude is 10,650 feet! But you will not be crossing the Continental Divide—that is a little farther north, beyond Wagon Wheel Gap and the Wheeler National Monument, where some of the strangest forms of erosion are to be seen, but you will be having a rare opportunity to gain a telling introduction to the stupendous mountain scenery of southwestern Colorado and the San Juan Valley."

And so it proved.

The ascent of Wolf Creek Pass is impressive. But that long drop on the other side! It was June, the time of rapidly melting snows, only a week after the pass had been opened by snowplows. For a mile or two the automobile made its way between drifts from four to six feet deep—remnants of the mighty fall of a long winter. Cataracts from the mountainsides sent down volumes of water to join the rapidly growing San Juan. Here and there an avalanche hid the river from sight, but a channel had been forced underneath. Above, the boughs shattered by the abrupt descent of the snow and ice made the snow green like the forest round about.

Not far from the foot of the pass lies Pagosa Springs, said to possess the largest hot springs in the world. Only a little way from the business street, it bubbles in a basin perhaps fifty feet in diameter. The temperature is 150° and the hot water is so plentiful in the ground round about that wells have been sunk to supply all the heat needed by many of the buildings of the town. And that is no small item where snow is apt to fall during six months of the year, where drifts stand many feet deep, and the thermometer drops down, down, down.

Pagosa Springs is a little north of a locality made famous in the early Spanish expedition of 1776 to the San Juan country of which Escalante told in his diary. The delicious narrative diary begins:

"On the 29th of July, in the year 1776, under the protection of our Lady the Virgin Mary, conceived without original sin, and under that of the most holy Patriarch Joseph, her honored spouse, Fray Francisco Atanasio Dominguez, the present visiting delegate of this district of the conversion of St. Paul of New Mexico and Fray Francisco Silvester Velez de Escalante, teacher of Christian Doctrine in the mission of our Lady of

Guadalupe of Zuni; accompanied by Don Juan Pedro Cisneros, the Mayor of the town of Zuni; Don Bernardo Miera y Pacheo, a retired captain, and citizen of the town of Santa Fé; Don Joaquin Laon, citizen of the same town; Lorenzo Olivares, of the town of Paso; Lucretio Munez, Andres Munez, Juan de Aguilar and Simon Lecero, having invoked the protection of the most holy saints, and having received the Holy Eucharist, we departed from the town of Santa Fé, capital of New Mexico, and after nine leagues of travel we arrived at the town of Santa Clara, where we passed the night."

The first boundary line of Colorado was crossed on August 5, near the junction of the San Juan and Navajo Rivers, and the camp site was called Nuestra Sonora de las Nievas (Our Lady of the Snows). This was not far from the place where the branch line from Pagosa Springs joins the main railway.

A much more modern story is told of an ex-soldier named Stewart who, from 1880 to 1886, searched the country about Pagosa Springs for a lost mine. When he was in the country in 1860 on Indian duty, he discovered in a mountain meadow stream rich looking gravel which led him to wash out in his hat a small residue of gold. Then he placed in his handkerchief a quantity of the rich gravel, intending to remember the spot, and return to it when he could. Years passed, and the contents of the handkerchief lay forgotten in his trunk. In 1880 he found the package, had it assayed, and was carried away by the suggestion that the pay dirt was worth $60,000 per ton. In haste he returned to the country about Pagosa Springs. For six years, in vain, he searched every stream in the vicinity. Once he found the site where soldiers camped on the night after the gold discovery; he recognized this by mule shoes he knew had been lost at that time. But the spot he sought re-

mained hidden. Had an avalanche covered the pay dirt? Or had a beaver dam submerged the important section of the stream? At any rate he died a disappointed man, and his stay—vouched for by many old residents of the neighborhood—has become one of the fables of lost mines which are so numerous in the Rocky Mountains.

The Indians sought Pagosa Springs for something less elusive than gold; they declared that healing lay in wait for those who used the hot sulphur water. In fact, all this region was a popular hunting ground. They liked especially to go to the Piedra and Oneal Parks in the heart of the San Juan country, where they could enjoy the rugged Needle Mountains which are such a tremendous feature of the landscape. As late as 1900 Indian hunting parties sought deer and sheep in the Weminuche, in Piedra Park, or west to the Hermosa for elk.

The lofty Needles are separated into two divisions by the Rio de las Animas Perdidas (the River of Lost Souls), so named because of the tragic death in its swollen waters of several of the Spanish explorers. Some of the more superstitious Mexicans still refuse to eat fish taken in the stream; they say that the souls of the drowned men entered the fish. The river goes by the shorter name, "Animas."

Names of other streams in the great valley have been shortened in like manner. There are nine of these mountain rivers, all stocked with the most delicious trout, with names as appealing as the rushing streams themselves. Think of the Rio de los Piedras (Stony River), Rio de los Pinos (River of Pines), Rio Florida (accented on the next to the last syllable—River of Flowers!).

There is fascination in every mile of the course of each stream. But perhaps none is more appealing than the River of Pines, which gathers in might as it descends

Sierra Blanca, San Isabel National Forest, Colorado

Crestone Needles, San Isabel National Forest, Colorado

The Great Sand Dunes, San Isabel National Forest, Colorado

Twin Sisters Peaks of the Sangre de Cristo Range. San Isabel National Forest, Colorado

from the Continental Divide at Weminuche Pass, far to the east of the Needles. Fortunately for fishermen, there are several ranches which they can visit along the lower water of this stream. One of the most convenient of these, the Hubar Ranch, is in a beautiful meadow with mountains all around. At one point, peeping over the lower mountains may be seen Mount Valecito, at the lower end of the Needles, close to the head of the Rio Grande. A fine forest of aspens and many kinds of conifers, including much choice yellow pine, make of the region a dream that cannot be forgotten. Of course a sawmill man has been trying to harvest these mighty trees, but fortunately the owner—a man trained in the United States Forest Service—thinks more of beauty and of the needs of future generations than of a few paltry dollars.

In that meadow in winter the snow sometimes lies four feet deep on the level, while in summer wild flowers bloom in profusion. And in every season the night sky—spacious as it always is in Colorado—glows with brilliant lights that seem to be intensified in splendor to a degree that makes star-gazing a fascinating pastime for hours at a time.

Down by the river a beaver pond and a beaver house are inhabited by a number of shy creatures which swim across the Pine, climb the steep bank on the other side, cut down with their sharp teeth thick aspens, divide the trunks into convenient lengths for carrying, then go to spots chosen with ingenuity for slides down into the water. It would be wonderful to see one descend with a length of aspen in his mouth, "But in all my years on this and other rivers I have never been fortunate enough to discover them at the work of which they make sport," said the Man of the Forest.

The Pine was swollen by the melting snows, so cross-

ing to see the work of the beavers would have been difficult but for a curious, crude car, suspended from wires. One or two passengers may be carried in this car, which descends rapidly nearly to midstream, where the waters which rush so madly over the rocks are uncomfortably close. Then comes the back-breaking, hand-destroying task of pulling the dead weight up the slope to the opposite bank.

A few hours after the investigators of beaver cutting crossed the Pine, that cable became a vital factor in the salvage of a boy, a fisherman, who had foolishly waded to a rock near midstream from which it was impossible to return; while he could stem the current on the outward trip, he found that he could not do so when his brother called him from shore. The older lad tried to swim to him, but in vain. Then the boy on shore sought the aerial cable ferry. The car was on the other bank, and his calls for help were unheard. So he essayed a task that might have been impossible under other circumstances: hand over hand he made his way over the cable. Then, almost exhausted, he ran to the ranch house. With a long lariat the proprietor went to the aid of the endangered lad, who was almost ready to drop into the river. But the rope proved too short. Return for more rope seemed inadvisable; the boy might at any moment slip into the water. So the man waded out into the current until the water was near his waist; then cast the rope to the boy, who caught it at the second attempt. The rest was simple, though the rescuer nearly lost his footing, and the boy, struggling at the end of the rope in the rushing stream, for a moment seemed doomed.

The ranch on the Pine River is in the heart of the San Juan Forest, one of the most majestic of the forests of Colorado, which contain in all 13,250,000 acres. And this great area is administered by less than one hundred

men, who preserve the timber, protect water sheds, guide those who graze a million cattle and a third as many sheep on the mountain grasses, direct the hunters who seek, when the law permits, elk, mountain sheep, mule deer and bear, or see that fishermen obey the regulations in offering the fly to the trout which are replenished by the addition to the streams of ten million fry a year, product of the Colorado fish hatcheries. And at all times they are telling the people how to make the most of the forests as places for camping, for sight-seeing, or for summer home building.

The San Juan Forest includes in its borders more than its share of the peaks in Colorado over 11,000 feet high. (The Colorado Mountain Club says there are 268 such peaks in the State.) But the Man of the San Juan Forest is not too partial to this largest of all the forests of the State, for once he wrote of all the areas:

"When the Great Architect was about to complete the plans for this earth of ours, realizing that labor is necessary for the physical and moral well-being of mankind, and that an excess of sustained exertion is a drain which will eventually deplete the most robust body, he said: 'I will provide a great playground for the Nation, where those who are weary or broken down from much toil may find contentment and health. I shall make it exceedingly fair, that all who come here may acclaim my skill.' And behold, the Rocky Mountains of Colorado were called into existence!"

Of the many inspiring features of the San Juan Forest, especially notable are the Chimney Rocks, curious and lofty formations which rise above the highway eighteen miles west of Pagosa Springs. The largest of these is nearly 300 feet above a ridge 1200 feet high; thus its altitude is nearly 8000 feet. The Spanish called them all Piedras Paradas (Rock Spires). But many knew them

before the days of the Spanish, or even of the Indians. For Chimney Rock Ridge was the seat of a village of the people who lived two thousand years ago; in the cliff, almost inaccessible, have been found the ruins of some of the houses. One of these houses, square itself, has a circular house within.

To the west of Chimney Rocks is the busy town of Durango, metropolis of the San Juan area, and bustling hive of industry, gateway by both railroad and highway to the Mesa Verde National Park. A smelter refines and separates the ore from many miles farther north, but wise citizens have realized that, while mining days may come to an end, cattle and agriculture always will be a dependence.

So Durango is on a substantial basis, as is fitting for a town that gathers to itself tribute from fifty miles north in the mountains and fifty miles south in the desert, fifty miles east in the country that reaches up on to Cumbres Pass, and fifty miles west, over the border in Utah.

Durango has a pleasant site, with the mountains to north, to east, to west. It is built close to the Las Animas. On the mesa where the town now stands, a surveyor of early days, engaged in mapping San Juan county, was attacked by Utes, and besieged for several days before relief came. He had dared to choose for his campground a spot which the Indians thought was their own peculiar property. They depended on the treaty of 1868, which reserved southwestern Colorado for the Utes. Not until 1873 was the treaty revised, so as to permit settlement. Eight years later the Denver & Rio Grande Railway reached Durango.

How the pioneers, who were accustomed to make their way over the mountains in the most primitive manner, would have been astounded if they could have seen the highway of today north from Durango through the min-

ing districts of Ouray, and then on to Glenwood Springs! They call it the Chief Ouray Highway. There are those who insist on speaking of it as The Million Dollar Highway. But this is contrary to the expressed desire of a resident of the region through which it passes. "Let us find a more distinctive name. Why should we be content to tell of it in terms of paltry dollars when there are so many more wonderful things to say about it?" Good for him!

The Chief Ouray Highway passes, near Montrose, within a few hundred yards of the ranch where the chief made his home, and those who pass by have no excuse for neglecting—not his grave, for Indians took the body for secret burial—but the memorial erected by the Daughters of the American Revolution, in the form of a concrete wigwam, over a spring, the monument in recognition of his services to the whites, and the grave of his wife. Not far away, near Ouray, there is a tablet that is even more intimately connected with the highway, for it tells of Otto Mears, "Pathfinder of the San Jose and Pioneer Road Builder," who was responsible for the construction, in 1881, of the first rude track over the difficult mountains south of Ouray. 1881 does not seem so long ago, but those whose memory goes back to that year are accounted real pioneers in the San Juan Valley.

There has been a motor highway—of a sort—from Durango to Ouray for many years. For eight or nine years automobiles have been able to negotiate the mountains with difficulty. Now, however, that there is a daily automobile stage running from Durango to Grand Junction, drivers of their own cars have learned the joy of making the journey without which no one can be said to have seen Colorado.

The mountain scenery begins at once after the Las Animas is crossed, on leaving Durango. Red sandstone

cliffs give hints of the kaleidoscopic glories to come, while a glimpse of the serrated Needles arouses keen anticipation. Hot springs invite invalids at several places, while country schools by the way are running full tilt in the midst of summer. This disregard of the usual school calendar is due to the fact that snows interfere sadly with a winter school.

Up a divide, with rich prospects on either hand. Which divide? It is so much smaller than others that it is not thought worthy of a name of its own. Evidently nothing under 10,000 feet is given a name in western Colorado.

By the roadside tower Hermosa Cliffs, with their mighty battlements, terminating in Castle Rock. Then Engineer Mountain is neighbor to Potato Hill. But the mountain is not thought much of, because it is not quite 13,000 feet high, and Potato is called a hill because it is not quite so high as Engineer! Out here in Colorado they have lofty ideas of what constitutes a mountain.

Even Colorado's ideas of grandeur are satisfied by the stupendous Purgatory Canyon, which leads out from the slope of the Cascade Divide. Cascade Creek crosses the road near the surface, but suddenly it drops into tremendous depths. One who descends with the stream must go miles before he can regain the surface. So most people are content to look down from the roadway.

Soon comes a vision of desolation—many thousand acres of steep mountain sides are suffering from the effects of an old forest fire. Tradition says that these mountains were burned as a protection against the Indians. Or did the departing Indians set the fires? But those who administer the San Juan Forest rejoice because the aspen is already clothing with green the devastated slopes, and in its own characteristic manner is protecting the pine trees to which, ultimately, it will give way.

Molas Pass is given respectful notice in the literature of the road, for one reason because it is 10,800 feet high. But there are other reasons. There is glory all about as the road ascends until it passes between depths of snow even ten feet high, reminder of an unusual winter. By the side of the road is Molas Lake, which has the distinction of nestling at the base of the Needle Mountains, said by the United States Topographers to include the most rugged topography on the continent. In this immediate vicinity are thirteen of the State's forty-six peaks over 14,000 feet in altitude.

The ascent of the pass is impressive, but the descent is indescribable. If Theodore Roosevelt had taken this trip, he might have reserved for it his often quoted dictum as to an ascent of the Continental Divide, "the trip that bankrupts the English language."

Suddenly there is a breath-taking picture of a town fifteen hundred feet down in the valley—the old mining settlement of Silverton. Once there were 10,000 people in this town, which dates from 1872; now it has but a few hundred inhabitants. But no one can take from it the glory of the past, or the regal beauty of its surroundings in the heart of the San Juan Mountains. Among other possessions the town rejoices in four canyons which lead into the mountains.

Up again. For this inimitable highway seems determined to climb. And as it climbs it approaches close to the red glory of the mountains. The fire that was busy once in the formation of some of the massive outcroppings seems to be present today all along the heights. Anvil Mountain is a good name for the height, for the sides glow like red-hot metal.

Fit surroundings for those who travel up Red Mountain Divide! Abandoned silver mines are everywhere; the only reminiscence of the fires that glowed in these

power houses is in the mountain that flames, and in such landmarks as Silver Ledge Basin—a massive amphitheater where the snow comes down from the far-away summit to the very roadside. Sometimes that roadway, built on a shelf of the mountain, is so steep that an ordinary-sized omnibus must make a switchback at a turn. Fortunately, however, there is no such necessity for the ordinary car.

Where is there anything like Red Mountain Divide? Passes in the Himalayas, and the surrounding mountains may be loftier, but can their grandeur be greater? And what other pass shows an old silver mine where once 3500 men were employed? A mere handful have taken their place.

Here it is but eight miles across the mountains to Telluride, another town that tells of its past mineral glory, that faces the future with courage and hope. The days of the Smuggler, Union, and Tomboy Mines are gone, but who knows what the future holds for this ambitious settlement near the Palisades of the San Miguel Mountains? Visitors cannot cross those eight miles—they must go south to Durango, or north to Ridgeway if they wish to see Telluride and look out on Lizard Head, Ophir Needle, and Mount Wilson.

But the visitor can go directly to Ouray, in its glorified setting amid the mountains. Again the road affords a vision of the tree-embowered city, far down from the heights. But first comes the trip down the Uncompahgre Canyon, where the walls are majestic, sublime. The road, blasted from the cliffs, is perched on the mountain side. The final touch of wonder is added to the surroundings by a stream that comes down to the road in a narrow rocky chute, then passes far beneath to fall in a cascade to a depth of more than two hundred and fifty feet. And this cascade is immediately under the feet of those who

On Ouray-Silverton Auto Road, Colorado

Gap in Mountains near Ouray, Colorado. Mount Abram (13,300 ft.) in Background

Indian Cliffs, Uncompahgre National Forest, Colorado

look over the parapet of the road! This is not a mere waterfall; the plunge is so tremendous, and the volume of water is so great, that the spray doubles the apparent size of the whole. The eyes pass to the opposing mountain side; down this comes, in mighty leaps, another cascade. Those who look at this follow it until their vision takes in the lofty Sutton mine, perched on the cliff just under the mountain's top. They say that this mine is only a prospect, as yet. Then the courageous prospectors deserve the success that will enable them to speak of the property as a real mine!

Hospitable Ouray, in its matchless mountain setting, 7700 feet high, welcomes the visitor, whether he be an ordinary traveler on the highway, a mountain sheep, or an elk; in winter, when snow is deep and food is hard to secure, these animals come down from the mountain side —the sheep to feed fearlessly in the railroad yards, and the elk to take the hay provided in a huge rack on a slope but a few rods removed from the houses.

Summer visitors, too, are shown that their coming is appreciated. They are taken to Ouray's pride, the Box Canyon. Is the traveler so weary of canyons that he thinks he can pass this by? Then he is mistaken. For a few moments' scramble from the heat of the town will take him into a mountain cleft the like of which he has never seen before, and will never see again, unless he returns to Ouray. This canyon is made by Canyon Creek, as it drops to join the Uncompahgre. And it does drop—not in a leap that can be seen in its entirety, for much of it is behind a leaf of rock that is like a cave, where the torrent can be seen and not heard. Then it passes through a gorge where the walls—so close together that one can almost touch both—are not straight up and down, as if cut by a knife, but have been worn

asunder by the water until they look more like a ragged tear in a curtain violently jerked in twain.

But the canyon is only one of Ouray's enticements. The amphitheater of lordly mountains that surrounds it on all sides gives unusual opportunities for long trail rides for those who are wise enough not to be content with what the highway offers.

The most spectacular trail ride is the all-day trip by saddle horse, by Horse Thief Trail, up one thousand feet within a mile, continuing to climb, often on the very edge of the mountains, looking down on the old mining town which, after being for more than half a century the center of stupendous delvings after earth's treasures, is calling to capitalists to come and find still greater value, and for tourists to see what is of more real worth than metals gained from the mines.

Ouray marks the terminus of one of the most stupendous, the most glorious half day's ride in Colorado. And that is saying a good deal!

For after Ouray has been left behind the country calms down. The mountains recede and the fields become fruitful, watered by the wealth supplied through the Gunnison tunnel, whose west portal is near Montrose.

One disconsolate farmer by the roadside, with a fertile field which he has cared for tenderly until it is a place of beauty, comes out to mourn the result of a blast of highway engineers which has scattered red rock over his field. Now red rock from the mountains is a good thing for the highway, but that it is not a good thing for the field the ranchman gives assurance so emphatically that the roadmakers descend to the ranch and sheepishly gather up the fragments.

Then comes Montrose, with its side trip to the Black Canyon of the Gunnison, and Delta, the heart of a rich agricultural region. But Delta has more to offer than

fertile fields. This is a favorite point of departure for the Grand Mesa, one of Colorado's greatest attractions. Here is a flat topped mountain, two miles high, a mile above the surrounding country, whose area is sixty square miles. The top is covered by thick forest, as is becoming the chief feature of the Great Mesa National Forest. Hidden away in the forest are lakes by the score, even by the hundred. These lures for the fisherman are reached by the Great Mesa Skyway, built by the Men of the Forest who never weary of urging men and women to visit what they call "The Roof Garden of the World."

Another center from which the Mesa may be visited with ease is Grand Junction, the terminus of the highway from Durango, and metropolis of a region of marvelous fertility. For near neighbor—near, that is, in the Western sense—Grand Junction has Glenwood Springs, where healing hot springs have been capitalized better than elsewhere in Colorado, and where guests are guided to many scenes of real beauty and grandeur—most of all, perhaps, the Narrows in the Colorado east of Grand Junction, where the young river receives its education for the majestic depths it is to enter on its lower course. If there were no Canyon of the Colorado in Arizona, this would be famous by reason of its precipitous granite and sandstone walls, now and then varied by a steep slope, always picked out with green as the pines cling to the shelves or crown the summits. And ever the river tumbles over the rocks in its rapid descent toward the vast depths at which the world stands in awe.

But the trip surprise is still farther on, into the heart of the Holy Cross National Forest, to that marvel of the Rockies, the Mount of the Holy Cross.

Chapter XVIII

ON THE TRAIL OF THE MOUNT OF THE HOLY CROSS

"How would you like to go to the Mount of the Holy Cross? We may take two days for the visit. But if you are ready for a little roughing it, I think I can promise you one of the finest trips in Colorado."

The invitation was given in Glenwood Springs by the Man of the Forest—this time the Supervisor of the Holy Cross National Forest, which contains considerably more than a million acres of delectable mountain land.

The two days were spent within the bounds of the Forest. First came the drive east along the Colorado River, through a gorge that should be better known to travelers. It is not enough to pass through this by railroad; only those who take the highway, preferably in an open car, can appreciate the stupendous red-tinged walls that rise, frequently, one thousand feet above the river.

Like all good things, this canyon comes to an end. The country soon opens out, but it continues to charm. Soon the Eagle River takes the place of the Colorado River, and there are glimpses of snow peaks that, one would think, would be an old story to the Colorado traveler.

These particular peaks are on the drainage ridge between the Colorado and the famous Frying Pan Creek. Drivers of cars are especially interested in the Frying Pan country, for, until a few years ago, the Colorado Midland Railway passed through it from Colorado

Springs to Grand Junction; now, however, the railroad is a thing of the past, and the marvelous grade, through country in which the traveler can find intense delight, has been possessed by the highway to Leadville. This includes a two-mile tunnel. Many car-riders prefer this route to the older road that follows the Denver and Rio Grande Western Railway, climbing over the famous Mountain grade, once the fear of automobile drivers, but now one of the country's finest highways, passing Empire zinc mine, whose buildings are scattered promiscuously above and below the road, and entering Leadville after crossing Tennessee Pass, the only highway mountain pass in Colorado that is kept free from snow during the entire winter. Either highway is a fitting approach to the highest incorporated city in the United States, whose history as a mining center has been so striking, whose commanding location makes it a Mecca for many visitors to Colorado.

What a setting that city has! From the summit of Tennessee Pass the whole range of which Mounts Elbert and Massive are the dominating peaks rises tremendously from the lower heights around them, and when Leadville is reached the range—so near that it looks almost as if it would be possible to shout to a man on the slopes—is the dominating feature of the landscape to the west.

Once the Man of the Forest pointed out a mountain tip, peeping over other nearer mountains. "The Mount of the Holy Cross!" he said. "But we cannot go there just yet; there is too much else to see today."

Over on the left another mountain summit rises against the horizon. "See Castle Peak?" the question was asked. "Once the Forest Service maintained a few lookout stations in that rocky finial up there. But nowadays the people are coöperating so thoroughly with the forest authorities that it is not now necessary to maintain the lookout; they report incipient fires as soon as the lookout

could do them. And this is but one indication of the new attitude to the Forest Service. Time was when the administration of the forests by the government was looked on not only with suspicion, but with positive distrust. Today the people are realizing that the areas are administered in the interest of the people. The attitude to the Holy Cross Forest is a fine example."

Among other benefits appreciated by the people are the roads fostered or cared for by the forest authorities. A splendid example is the highway out of Eagle, up Brush Creek. While the Forest Service has not built this most unusual road, it has coöperated with the Department of Agriculture in doing so. Fortunately, the road branches soon; one branch goes up East Brush, while the other goes up West Brush.

"Which road is preferable?" To this query the reply came, "Both; if you are in the forest for a real vacation, you cannot be satisfied with one." The West Brush Road leads over Red Table Mountain directly to the famous Frying Pan Road to Leadville, while the East Brush Road shows the way to a fascinating trail region. The shortest of these trails leads to the newly discovered Fulford Cave in Porphyry Mountain, where passages go back into the mountain for a long distance.

"But where is the Mount of the Holy Cross?" the Man of the Forest was asked.

"Perhaps ten miles southeast of the terminus of the Brush Creek Road. But you can't see it. To-day I have been trying to give an idea of some of the majesty that surrounds it. To-morrow will show us the mountain."

But the morning brought an unexpected interruption. To be sure, it led the pilgrims to Red Cliff, on the Battle Mountain Highway, the town which dreams of being on a road that will display with ease the wonders of the Holy Cross. In the meantime it is encouraging visitors

to go to the Holy Cross Shrine, a spot from which a perfect but distant view of the awe-inspiring mountain may be obtained. At this spot—perhaps seven miles from Red Cliff—the Secretary of Agriculture has set apart 320 acres for the purpose of the Shrine, that visitors may be accommodated there when they go to what, to many, is the chief wonder of the Colorado Rockies.

But duty called the Man of the Forest to Pando, where 4500 sheep were to arrive from Oregon, their winter range, looking for their summer feeding ground in the Holy Cross Forest. And the seekers for the Mount of the Holy Cross waited until the sheep had been attended to.

"But take a few minutes," said the Man of the Forest, "to go over yonder on the highway that begins to mount up the Tennessee Pass. Keep on going until, when you look back, you see the Cross itself rising above the intervening mountains."

The start of the trip to the place where the animals were to be given their joyous release after a journey of eight days, was made at four o'clock in the morning. By seven o'clock the sheep had been counted, and their driver was free to take them to pasture provided by the Forest Service at a nominal price. Thus another of the ministries of the forests to the people of the nation was illustrated most graphically.

"At last we can go to the Mountain!" said the Man of the Forest. "We set out from Minturn, the town which is the starting-point for the annual July pilgrimage to the Mount of the Holy Cross. The second pilgrimage was made in 1829. From all parts of the country come men and women who go to Camp Tigawon, 'Place of Trails,' half way along our trip of to-day. And then on up Notch Mountain from which they can see the Cross. Soon a highway will be completed to the camp."

The trip up Notch Mountain is by trail. The journey is by no means difficult, since horses may be used for the first seven miles of the route. And those seven miles are crowded with delight. The way is through fragrant pines, and among the aspens, to timber line, which is but a short distance from the end of the journey.

Unexpected bits of wild life are provided for the pilgrim. A ruffled grouse may startle the horses by his characteristic whir as he rises for cover in the deep wood. Perhaps a clumsy hedgehog will make its lumbering way across the trail. Birds are everywhere. And the flowers! Down on the lower lands are blooms of many colors. But the daintiest, most beautiful specimen is found above timber line—the Alpine forget-me-not, whose deep blue flowers are not more than a fourth of an inch in diameter. But how the blossoms make splendid the ground where other vegetation is limited!

From many points on the trail the surrounding mountains may be seen. They look so different here! In the valley they are impressive. But they cannot be appreciated until they are seen from aloft, where it is possible to study the summits from an entirely new angle.

The best part of the trail comes after the horses are tethered in the trees at timber line. The sign by the trail says that the distance to the place where the cross may be seen in all its glory is only a mile and a half. Yet that short distance is filled with wonder, as its end is crowned with delight. An hour at least is needed for the scramble over great rocks that are piled in all sorts of disarray at an angle so steep that the way looks much more difficult than it is. Even as late as June 20 snow banks may intervene between the rocks and the vantage point for the promised view. Yet a few hundred yards of snow, even if this also is at a steep angle, cannot be

Uncompahgre Peak, Colorado

Chimney Peak from Owl Creek Pass Road, Colorado

allowed to stand in the way of the prospect from the coign of vantage that is the goal of this trail trip.

"Now!" said the Man of the Forest, who was leading the way. When others stood by his side they were speechless. Over yonder, across a gulf 3000 feet deep, rose the mighty slope of the Mount of the Holy Cross, and near the summit of the peak, 13,996 feet high, begins the sacred emblem set in the mountain by the Creator. Fourteen hundred feet down reaches the great upright of the cross—a deep crevice in the cliff filled with eternal snow. And across this vertical fissure reaches another; this is 400 feet long. The fissures mark veins of hematite iron ore; these streaks, softer than their surroundings, were worn down during long geologic ages, and the snow finds resting place there. Long the eyes are chained by this vision of glory which is visible only to those who climb, since Notch Mountain hides it from others. With difficulty they are drawn away to look at the other mountains which are visible all around the horizon, except where the highest part of the Notch Mountain, 13,500 feet high, on which the observer stands, interrupts the panorama.

That panorama begins, of course, with the heart of Mount Holy Cross. Near by is Mount Jackson, only a little less in altitude. Then come the Cross Cut Ridge, the Flat Tops, the mountains in Pike Forest, in the direction of Pike's Peak, the Gore Mountains with their serrated summits, the Ten Mile Range, the Continental Divide, and the Homestead Peak.

Where is there a more splendid vision of mountains?

And above all in glory is the Mount of the Holy Cross, which is now a National Monument, having been so made by President Hoover.

Sometimes those who read the travel records of Thomas J. Farnham, which tell of his trip to the Rocky

Mountains in 1839, think that he was talking of the Mount of the Holy Cross when he wrote:

"In the distance to the West, were seen through the openings between the butes, a number of spiral peaks that in imagination could have formed the part of a vast holy edifice of the eternal hills. On the eastern face of the gable bute were two transverse seams of what appeared to be crystallized quartz. The upright was about sixty feet in length, the cross seam about 20 feet, thrown athwart the upright near the top and lying parallel to the plane of the horizon. I viewed it as the sun rose over the eastern mountains, and fell upon the glittering crystals . . . built within the foundations treasured in the bosom of these grand solitudes. How . . . impressive was this cross of living rock in the temple of Nature where priest never trod, the symbol of redeeming love, engraven . . . by God's own hand on the brow of his everlasting mountains. The trappers have reverently named the peak, the Mountain of the Holy Cross.

" 'Pray, kneel, adore,' one seems to hear softly breathed in every breeze. 'It is holy ground.' "

But Farnham was writing, not of the wonder seen from Notch Mountain, but of another mountain in Summit County, on the eastern slope of the Blue Range.

Evidently when the greater marvel was discovered, the mountain that attracted the explorer of 1839 ceased to be famous.

Chapter XIX

THE GLORY OF THE BLACK HILLS

"More, you say? What more can there be?"

The surprised query came from a fellow traveler who thought that Wyoming, Montana, Utah, Arizona, New Mexico and Colorado include the entire Rocky Mountain Country.

"Of course it is foolish to cover the Rockies much more intensively than we have done. But what area have we left untouched in our roaming?"

"One of the finest areas in the entire Rocky Mountain system—the Black Hills of the Bad Lands of South Dakota," was the reply.

There are literalists who will say that Roaming the Rockies is not the proper name for this volume; its author, they may think, has been altogether too generous in his gift to the Rocky Mountains of territory in the Black Hills of South Dakota, in Montana, and in Utah which does not belong to the system. When a well-known geologist heard of the plan of this volume, he wrote:

"I fear your geography is somewhat rusty, as the Rocky Mountains are about five hundred miles west of the western boundary of South Dakota."

But the author takes comfort in the words of J. W. Powell, written in 1875, and contained in his Report on the Geology of the Uinta Mountains:

"All these mountains west of the one hundredth meridian are popularly known as the Rocky Mountains . . . Later writers, wishing to be more definite, speak of the

Cascade Mountains, the Coast Range, the Sierra Nevada, the Wasatch Mountains, &c. But in an important sense the region is a unit; it is the generally elevated region of the United States; it is the principal region for the precious metals; it is the region without important navigable streams; it is the arid land of our country where irrigation is necessary to successful agriculture . . . It is the Rocky Mountain region. There is necessity for popular purposes for some general name. And this one so appropriate will doubtless continue to be used, and it would seem best not to attempt to confine its application to any more restricted area."

Now look at the map of the United States, and note that the one hundredth meridian divides the Dakotas. Thus the Black Hills are included in the region which, according to Powell, is known popularly as the Rocky Mountains. Then the glorious country of Northern New Mexico, Northern Arizona, and Utah may join with Colorado, Wyoming, and Montana, in claiming to belong to the great western mountain country.

If Thomas Jefferson had been looking at the Bad Lands of South Dakota instead of at the prairies beyond the Appalachians when, according to tradition, he said, "Here ends civilization!" modern teachers would find easier an appreciation of his point of view. For these approaches to the Black Hills—the lonely outposts of the Rocky Mountains—look so decidedly forbidding that travelers of today can sympathize with the Indians and the trappers who avoided them with such determination. The Indians said they were the abode of evil spirits, while the trappers were dismayed by the difficulty of access to these weird relics of a long-gone era of earth-making.

But today the Bad Lands are not avoided. Those who seek the region beyond, where civilization flourishes in spite of the mournful prophecies of those who declared

there could be no future for the lands west of the Mississippi River, welcome the Scenic Loop on the Yellowstone Trail which takes them down from Cottonwood, through Cedar Pass, then back through Big Foot Pass to the main highway.

Passengers on the railway from Winona, Minnesota, to Deadwood also have opportunity to see in passing some of the wonders of this strange wilderness of fantastic columns, distorted images and architectural bad dreams which has been called "a physiographic masterpiece."

It is remarkable that both northeast and southwest of the Continental Divide it is possible to study so easily the processes of earth formation. For in these Big Bad Lands, as in the Grand Canyon of the Colorado, the story of the making of the land and the rocks is still being told. A scientist of the South Dakota School of Mines has explained how "Cheyenne River and especially White River have been and are now the chief factors in the development of the Big Bad Land topography. White River for more than fifty miles of its middle course meanders across a wide alluvial bottom, underlain by Bad Land sediments, while its many-branched head and all of its larger tributaries from the south and a number from the north continue to gnaw vigorously into deposits that retain much of their original thickness." And a member of the staff of the United States Geological Survey speaks of them as "a spectral expanse of rock, with little soil and scant vegetation," fantastic areas which have for many thousand years been the battleground of the elements. "Here wind and water sink their ramparts deeper and deeper into the earth, fling their green columns against the defenses of the countryside, and mock the sagacity of man."

Geologists agree that the several hundred square miles of the Bad Lands are the reminder of a prehistoric sea

that extended even to the Rocky Mountains. This sea was succeeded by a great tropical swamp, the haunt of gigantic reptiles and herbivorous animals as spectacular as the sculptured towers and pinnacles that now rise above this swamp of long ago. These were cut during ages untold by rivers and winds in the plateau that succeeded the swamp.

Hundreds and even thousands of visitors seek the Bad Lands each month in the summer, on the trail of rare beauty. They climb the walls of the School of Mines Canyon, finding their way along the ledges that enable them to look far down on the floor below; they examine the formations of Sheep Mountain, and revel in the varied vision between the mountain and White River; they study the lone pyramid and the castle-like formations that abound everywhere; they follow along the Great Wall or seek the fastnesses of Castle Butte Canyon. And as they look they wonder how so many travelers feel that it is hardly worth their while to pause in their journey to the Black Hills to pass through this vestibule to the Rocky Mountain outposts.

Scientists, too, from all parts of the world, seek these haunts of the brontotherium, the thunder beast; the aceratherium, the rhinoceros without horns; the mesohippus, the little horse with three toes; the poebrotherium, the strange little camel which had no hump; the hoplophoneus, the tiger with saber teeth; and dozens more of beasts with strange names, like the crocodile whose aspect was so terrifying that the saurian of today is like a gentle pet in comparison. Mired in the morass, these beasts left their bones where rock hardened about them, that modern seekers after truth might dig them up and reconstruct the story of the past. How one searcher shouted when he found a petrified turtle's egg! The thrill of a lifetime came with the discovery of the first saber

tooth tiger, high up in a steep slope strewn with walnut-size nodules, which, serving as natural ball-bearings, made climbing and steady work difficult. Another digger in the dust of ages tells of his discovery of the skeleton of a great crocodile, which, just before his death, had been feeding on a deer whose bones were found near the crocodile's jaw. "It is easy to picture the gradual accumulation of muddy sediment over the swamp and surrounding country," the discoverer says with relish, "burying the crocodile under an increasing thick mantle of hundreds of feet of silt and sand."

That story has been told in rhyme by Badger Clark. Read his vision of The Bad Lands:

"No fresh green things in the Bad Lands hide;
It is all stark red and gray,
And strewn with bones that had lived and died
Ere the first man saw the day.
When the sharp crests dream in the sunset gleam
And the bat through the canyon veers,
You will sometimes catch, if you listen long,
The tones of the Bad Land's mystic song,
A song of a million years.

"The place is as dry as a crater cup,
Yet you hear, as the stars shine free,

From the barren gulches sounding up,
The lap of a spawning sea,
A breeze that cries where the great ferns rise
From the pools on a new-made shore,
With the whip and whir of batlike wings
And the snarl of slimy, fighting things
And the tread of the dinosaur.

"Then the sea voice ebbs through untold morns,
And the jungle voices reign—

The hunting howl and the clash of horns
And the screech of rage and pain.
Harsh and grim is the old earth hymn
In that far brute paradise,
And as ages drift the rough strains fall
To a single note more grim than all,
The crack of the glacial ice.

"So the song runs on, with shift and change,
Through the years that have no name,
And the late notes soar to a higher range,
But the theme is still the same.
Man's battle cry and the guns' reply
Blend in with the old, old rhyme
That was traced in the score of the strata marks
While millenniums winked like campfire sparks
Down the winds of unguessed time."

Time was when these Bad Lands extended to the north, to the south, and on toward the Rocky Mountains. Now, while there are suggestions of them farther afield, the chief survivals cluster perhaps fifty miles southeast of the Black Hills, those majestic forest-clad mountains which one scientist has called a "miniature representation, compact and complete within themselves, of the topography and geology of the great Rocky Mountain System." Strictly speaking, of course, they are not a real part of the Rocky Mountains. But they make such a fine introduction to the Rockies by those who approach them from the eastward that it is impossible to be guided altogether by the strict interpretation of those who insist on limiting the name Rockies to the range that forms the backbone of the Continent.

A second fine approach to the Black Hills is from western Nebraska. How exhilarating is the steady climb from the plains! What a varied series of pictures there

is! Cottonwood trees. Scrub pines. Curves and reverse curves. Cowboys riding herd. Sod houses. Weighty black sod curling before the plow in fields by the railroad. Outlying bits of the Bad Lands—turrets, bastions, castles upon the ridges, with a background of blue beyond.

Reluctantly the eye is taken from the passing kaleidoscope, as a passenger in the seat behind leans forward. But reluctance is forgotten as he talks, for he tells of days when he lived on a ranch on the Little Missouri, perhaps a hundred miles to the north.

"We had a young fellow there who called himself Teddy Roosevelt," the old man rambled. "One day a boy from Texas was trying to round up a bunch of cattle. But he was too slow to suit the budding apostle of the strenuous life. 'Young man, accelerate your movements!' Roosevelt shouted. Bewildered, the lad shook his head.

" 'What does Four Eyes mean?' he asked.

" 'Hustle!' a bystander explained.

" 'Then why didn't he say so?' the would-be cattleman asked, in disgust.

This is the country that led William Ludlow to write in 1874, when he was approaching the Black Hills:

"Prairie travel resembles that by sea, which indeed the landscape not infrequently suggests. The compass is the guide, the direct course is not always the best, and the probabilities of finding wood, water, and grass, and a good road, compare with those of obtaining favorable and moderate winds and a smooth sea."

Now we cross the South Fork of the Cheyenne River, the more southerly of the streams that enclose the Black Hills. The northern stream is the Belle Fourche. The sources of both are close together in Wyoming; then they reach up, and down, before they come together to form the Big Cottonwood, giving room for what has been called "The Northern Glory of the Great Plains"—the

Black Hills. These glorious hills, as a geologist writes lovingly, "surrounded on all sides by the comparatively unbroken sea of the Great Plains, are entirely separated from the main chain of the Rockies, to which system they belong, in character and structure, and rise an island of rough and rugged mountains, complete with themselves."

"An Object Lesson in Geology," is another characterization of the five thousand square miles, shaped like a great oyster, which lay their spell upon the visitor until he has to return, not once, nor twice, but a dozen times, lingering long amid the canyons, by the creeks, in the dense forests, or on the mountain tops. If he is a geologist he will sympathize with the enthusiast who declared that in all the western country he had never seen the Cretaceous, Jurassic, Triassic, the Carboniferous, and Potsdam rocks, so well exposed for study as here in the Black Hills, which are the successors of a barren and desolate sea, in ages when there were neither plants nor land animals, when "the only moving things that left their record were the waves that rolled over a broad and shallow sea and broke the silence by dashing against the primordial land. Slowly but surely they tore and undermined the cliffs and rolled away the fragments to form the conglomerates and sandstones of another age. The inequalities of the archaean shore became gradually filled up. As the sea rose higher upon the land all that was not worn away at last became entirely covered by the Potsdam sea and its sediment." Again the sea became shallow, and the Black Hills lifted, "like a great dome." Rivers cut into this dome. Canyons were formed. In time, we are told, fully one half of the uplift was washed away. And the end is not yet, nor will it be, until there are no more Black Hills, but all are level with the plain. The process is slow, but it is steady and sure. "One may live a lifetime in a valley and scarcely mark the change of a single important

feature, much less recognize any pronounced change in the valley's width or depth," says Cleophas C. O'Harra, the wizard of the Black Hills, the uncrowned king of the Bad Lands. "Nevertheless, the winds and the rain and the frosts, with such vegetation as there may be, are constantly exerting their influence, and the mud of the traversing streams after every freshet, and the materials held in solution, are abundant proof that rock substance is being removed and carried to some lower area, and ultimately to the sea."

But fortunately we do not need to think of the day of ultimate disappearance of South Dakota's glory. The Black Hills are older than the Apennines or the Pyrenees; they existed when "the region now occupied by the unmatched Himalayas was little more than a brackish marsh," and they will be here for countless ages to delight the student and the seekers after visions of delight.

For scientists are not the only visitors. The highways and the railroads are bringing an ever-growing army of enthusiasts who wonder why they were not told long ago of the wonders of these hills which were called Black by the Indians because of the dark foliage of the pines that cling to the slopes. "They loom up in the distance as a dark range, black from the heavy growth of timber they support," wrote one of the earlier government investigators.

The wonders of this charmed region begin almost at once after the crossing of the Little Cottonwood. There are the hot springs which give health to the invalids who seek them. Up the near-by Minnekahta Creek, surrounded by trees of living green, are the petrified forests of another age, where trunks of many sizes lie prostrate, while fragments are all around. They tell that in days when the Black Hills were comparatively unknown, Edgar Allan Poe, in the Thousand and Second Tale of Schehera-

zade, spoke of coming to a place "where the forests were of solid stone, and so hard that they shivered to pieces the finest tempered axes with which one endeavored to cut them down." Then, in a footnote, he added: "This account, at first discredited, has since been corroborated by the discovery of a completely petrified forest near the headwaters of the Chayenne or Chienne River, which has its source in the Black Hills of the Rocky Chain."

Thus Poe showed that there was in his mind a bit of the confusion that was characteristic of the reports of some of the early explorers. Not only did they speak of the region as a real part of the Rocky Mountains, but John C. Fremont, in 1842, gave the name Black Hills to the mountains about Laramie Peak in Wyoming. When the first explorers for gold came this way they gave the name to the true Black Hills.

A short distance south of Poe's petrified forest is a curiosity that has been thought of enough importance to make it the Fossil Cycad National Monument. In 1922 President Harding set apart 320 acres to protect for future visitors the "large deposits of the fossil remains of fern-like plants of the Mesozoic period." In the last year of the nineteenth century attention was called to the fossil trunks of wonderfully beautiful and perfect tree ferns which bore flowers. Buds are preserved, as well as the fruits, though no full blooms are found. This lack is due, in all probability, to the fact, as the National Park authorities state, that "the open flowers were so delicate in structure that when the events leading up to fossilization started they wilted and were destroyed." Visitors must be content with seeing the four or five hundred buds on some of the trunks, or with a trip to Florida or Mexico, where similar cycads may be found today.

This is only the beginning of wonders. For to the north of Poe's fossil forests and the region of the fairy

cycads is Wind Cave National Park, set apart for the people in 1903 to preserve the greatest cave yet found in the characteristic limestone of the region. The entrance to this cave was discovered in 1881, when a cowboy shot a deer. The animal rolled down the hillside, and he followed, intent on taking the skin. But when he reached the deer he was attracted by a whistling noise which seemed to come from the rock. After a bit he found a hole not more than eight inches in diameter through which the wind was blowing. Later he found that sometimes the wind blew in, sometimes it blew out. Curiosity led him to enlarge the hole and to enter the passage disclosed. The first timid exploration led to others, and today many miles of passage have been opened. No one knows how many miles there may be still to yield their secrets, for the usual formations which vary with the cave yet are so similar that explorers who never visited another cave are apt to give them names similar to those chosen in other caverns. But one feature of Wind Cave worthy of note is that—due to the uniform temperature, the lack of vegetation, and a peculiar quality in the air—sufferers from hay fever find instant relief as they enter the passages. Perhaps to this fact is due a part of the rapid increase in the number of those who visit the cave. In 1921 only 7559 registered there, but today the number is more than three times as large. Ease of access by highway as well as by rail has caused this rapid growth.

The town of Custer—named for General Custer who for two years guarded this portion of the Black Hills, when Indians threatened the gold miners and gold miners angered the Indians by their presence—is in the heart of the southern Black Hills. From the town leads a tantalizing highway, through French Creek Canyon, past the Gordon Stockade, reproduction of the original built by the Gordon party of gold-seekers in 1874. The twenty-six

men and one woman in the party hailed from Sioux City, Iowa. This first white woman in the Black Hills was Anna D. Tallant, schoolteacher, to whom a monument has been built near the stockade. They knew they had no right there, and that there was danger from the Indians, so they built the stockade for defense. There they spent the winter. In July, 1875, they were ordered to leave by Custer's troops, and when they demurred they were taken to Cheyenne. But they stole back, and began to search the creek beds for gold. In 1925 local historians discovered the rotted stumps of the stockade logs, and rebuilt the rude structure according to a sketch that survived.

How the Sioux clung to their lands, which had been set apart for them by the treaty of 1858! Here they hunted the buffalo, the antelope, and the deer, until these animals disappeared. Even then they were unwilling to think of giving up what they looked upon as their last stand against the whites. It is estimated that as late as 1875 there were perhaps 50,000 of them in the Bad Lands and the Black Hills.

The beginning of the end came in 1859 when Jim Bridger, while acting as guide and interpreter to Captain Raynolds' party of military explorers, threw himself from his horse to drink from a creek. His sharp eyes saw some yellow pebbles. These he took to Captain Raynolds.

"They are pure gold!" said the commander.

But he was more troubled than excited by the discovery. He feared the result on his men if they heard of the gold. So he asked Bridger to throw away the valuable pebbles, and say nothing.

Thus for fifteen years the danger was averted. But in 1874 General Custer told of the presence of gold in the Black Hills. Bridger was asked about the precious metal, and he told how he had found gold, in a number of places.

"But it is dangerous to go after it. You must go in strong, well-armed parties, or the Sioux will get you. The hills are theirs, you know."

But men always have been willing to risk anything for gold, so they entered the Hills. For two years they gave the Federal troops much anxiety. Then, in 1877, their presence was made legal by the treaty which opened the Black Hills for settlement. The Sioux received $4,500,000 for their lands. There was much activity on French Creek and Castle Creek, Rapid Creek, Battle Creek, and even Spearfish Creek, west of Deadwood. The discovery in Deadwood Gulch was not made until 1875.

The placer gold has disappeared, but at every turn there are riches more lasting than gold—the beauty of the hills, the glory of the forests, the vision of a sky that rivals the blue above the Mediterranean shores. At a distance, on the left, those odd obelisks, The Needles, point the way to the summit of Harney Peak. Near the road is the huge granite ridge climbed in a race by Calamity Jane, most notorious of the women desperadoes of the days of gold. A few miles to the north is the rugged face of Mount Rushmore, where Gutzon Borglum is carving on a granite cliff 450 feet high heroic statues of Washington, Lincoln, Jefferson, and Roosevelt. It is believed that the ambitious plans will be carried to completion.

There are splendid views of Mount Rushmore from vantage points on a spectacular road, completed recently to the summit of Mount Coolidge, the name given to Mount Lookout in 1927, as a memorial of the time when the State Game Lodge, near by, was the summer White House.

"How men of a generation ago would have marvelled at a road like this!" a traveler remarked to his companion.

"And we marvel today!" was the response. "In 1922

we had only about twelve miles of improved surface road in the entire Black Hills. Now there are 250 miles!"

What a breath-taking view there is at the end of the mountain road! Harney Peak, of course—as well as lesser peaks to the north and northwest; the Bad Lands, 60 miles away; far below, the heavily forested French Creek Valley, and its canyon, stretching away to the foothills.

"If you could have seen the country fifty years ago!" was the greeting of the veteran who scans the forests below for the slightest sign of fire. "I am crippled now, and cannot get about very well, though once I was everywhere. Wish you could stop and talk about the days when I was young, and took part in the early history of the Hills. Or would you look at my specimens of rose quartz that I've gathered for you?"

Down the mountain to the State Game Lodge, where they speak with pride of the days when a president gave new glory to a building already remarkable for its architecture, as for its setting in the midst of beauty indescribable; then off on the marvelous Needles Road, through the Custer State Park and Game Sanctuary, the 120,000-acre reservation where South Dakota and the United States work together—the part of the Nation being to supervise the timber and to maintain a fire patrol.

The claim is made for the park that it is one of the most charming areas in all the galaxy of the world's picturesque places. A large claim? But it is amply justified. Let the doubter go there, and he will be convinced! It is impossible to take the fourteen-mile drive from the point where the Needles Road joins the road from the Game Lodge to beautiful Sylvan Lake, without repeated rapturous rejoicings because of fresh standards of beauty. Incidentally, the road itself is a marvel. Tunnels through the cliffs, triple S turns in the most advantageous places for the

sightseer, grades that are steep, yet easy and safe. The cost, which might be compared to that of an ordinary railway of equal length, would have been much greater but for the fact that explosives were supplied by the government from left-over war material.

Through the pines winds the road, as through a park, curving through aisles of trees. On the hillsides deer and elk are visible. At night travelers learn to focus their lights on the startled animals. If the ride is taken in the autumn, the golden yellow of the aspen trees and the birch trees makes pleasing contrast with the green of the pines and spruces. But at every season the lines of Henry Van Dyke sing themselves to the observer:

"Many a tree is found in the wood
And every tree for its use is good:
Some for the strength of the gnarled root,
Some for the sweetness of flower and fruit;
Some for a shelter against the storm,
And some to keep the hearthstone warm;
Some for the roof, and some for the beam,
And some for a boat to breast the stream;
In the wealth of the wood since the world began
The trees have offered their gifts to man."

And flowers! It is said that there are probably more than 1000 different kinds of ferns and flowering plants in the Black Hills. The variety may be imagined from the statement of Arthur C. McIntosh:

"Botanically speaking, in the Black Hills the West begins, the East ends, and North meets South. Almost every ravine is a cascade of ferns; along the foothill streams are plants of diverse kinds, while moist ravines, valleys, gorges, mountains and granite peaks each have their own especial verdure."

Here and there by the side of the highway campers

from neighboring States, as well as from districts farther away, revel in the luxuriant verdure, the populous streams, and the restful prospects that beguile the way. The farmers and ranchers of Wyoming and Nebraska, especially, are learning to seek the Black Hills as soon as their harvests are gathered in. Abundant provision is made for their comfort along the way.

But however they may pause by the roadside, the Needles Highway is the objective of all who come to the Hills. On the way to the summit they halt often to enjoy the ever-varying glimpses of the Needles and of Harney Peak, and, through an opening in the trees and the cliffs, the Seven Peaks View, which discloses seven mountain tops, each more beautiful than its predecessor in the sequence.

At length the road rounds a cliff, and Sylvan Lake appears, nestling in the midst of precipices surrounded by jagged pinnacles. It is a surprise to learn that this gem of a lake is artificial; a narrow dam at the head of Sunday Gulch enables the springs above to fill the cup-like basin. The hotel, located close to the dam, is a convenient stopping-place for those who would go on to the tip of Harney Peak, past those beetling crags, The Needles, which make the mountain unlike any other summit. These saw-teeth of granite are called by geologists weathering planes. They are granite pinnacles or slabs, weathered out from a mass that has disappeared. They rise from 100 to 200 feet above their surroundings.

Here, in 1896, before the hotel was built, John Muir stood in rapture so great that he was led to write more enthusiastically than of any other scene he witnessed in his travels. To his daughters he said:

"My!! If you could only come here when I call you, how wonderful you would think this hollow in the rocky Black Hills is! It is wonderful even to me after seeing so many wild mountains—curious rocks rising alone or in

clusters, gray and jagged and rounded in the midst of a forest of pine and spruce and poplar and birch, with a little lake in the middle and a carpet of meadow gay with flowers . . . How moist the air is! I would like to stop a long time."

The lake was not there in 1874, when Custer climbed Harney Peak while he was making the first expedition to penetrate the Black Hills. With his party he reached the foot of the final precipice, but not until 1875 did the first party reach the summit.

With Custer was William Ludlow, who told of riding eight or nine miles over high hills and heavily-timbered ravines to a lofty peak. "Leaving the horses at the foot of the clear granite, the ascent was made on foot. Halting to rest and lunch, another summit, two or three miles west, was seen, rising higher than the one we were on. Reaching the summit of this, still another, several hundred feet higher, and a mile more west, showed that we had more work to do. A stiff climb brought us to the top, whence nothing more lofty could be seen. We stood on the most elevated portion of the hills . . . except that alongside us rose a mass of granite forty feet in height, with perpendicular sides that forbade an attempt to scale them without the aid of ropes and ladders. The view was superb, extending over the intervening peaks and hills to a broad expanse of prairie from north by east round to southwest."

The ladders of which the pioneer of 1874 spoke have been supplied; they lead to the fire observer's lookout. C. C. O'Harra, who has stood many times on the vantage point to which these ladders lead, has told his students in the South Dakota School of Mines of the panorama. "For miles in every direction the impressive forest rolls away in broken, descending undulations. Granite eminences of varied shapes scattered about in open array lift

their heads above the wooded heights and, standing silent, like shining, imperial guardsmen, emphasize the larger splendor of the central mountain. Great gray, whaleback bodies, seemingly ready to race across the view, are characteristic of the area; here and there is a huge bulk, much like some old castellated fortress, that commands a large surrounding country."

Among the peaks in the Hills, many of which can be seen from Harney's summit, are Custer, whose symmetrical, conical mass rises far to the north; Terry, almost as lofty as Harney; Crow, also in the north, rising suddenly from the valley; Bear Butte, whose barren sides have led some to think the name should have been spelled differently; Inyan Kara on the west, in a region held by the Sioux in especial regard; and Belle Fourche, a notable landmark in the north.

Ludlow, whose description of the climb of Harney has been given, had his first good view of the bold mountain from a point fifteen miles to the northwest. There he marvelled at a vision of light. In his report of the expedition he told of this vision in words which should be rescued from oblivion—not only because he wrote so well, but because he told of something that is still characteristic of the locality:

"The moon was rising over the outer shoulder of Harney, and masked by heavy clouds. A patch of bright red flame was first seen, looking like a brilliant fire, and soon after another so far from the first that it was difficult to connect the two. A portion of the moon's disk became presently visible, and the origin of the flame was apparent. While it lasted the sight was superb. The moon's mass looked enormous and blood red, with only portions of its surface visible, while the clouds just above and to the left, colored by the flame, resembled smoke drifting from an immense conflagration."

It is evident that Ludlow formed a high opinion of the Black Hills. In fact, he said in his report: "The real worth and value of the country are, beyond doubt, very great. Its fertility and freshness, its variety of resources and delightful climate, the protection it affords both against the torrid heats and arctic storms of the neighboring prairies, will eventually make it the home of a thronging population." Yet he felt that for the next fifty years the Black Hills should be kept as the permanent home of the Sioux, who, when the buffalo should become extinct, would desire to settle down there, making it their permanent home, "thus avoiding the gradual extinction which is their fate." Even if a treaty made settlement possible, a large military force would be necessary; even then "hostile incursions would not be infrequent, nor an occasional invasion unlikely."

What a prophecy of the awful fate of Custer's command so near at hand and so soon afterward! And to think that it was made by one of his own party!

From Sylvan Lake the highway leads down out of Custer State Park, around Deadman's Curve, and through Harney Canyon to Hill City. There the road to Rapid City is made notable by the sight of an old stage-coach tavern by the wayside, its logs now covered with boards; an old time mine long abandoned; beautiful Spring Creek Canyon; and, at Sheridan, the first court house in the Black Hills!

Rapid City, the metropolis of the region, is in such easy reach of the wonders of canyon and valley and mountains that its people make frequent excursions into the fastnesses to the west, especially the wild and rugged canyon of Rapid Creek. But they have nearer still a notable repository of some of the marvels of their unusual surroundings—the Museum of the State School of Mines. There minerals, rocks and skeletons are neighbors of

specimens of Indian handwork and firearms of the pioneers. There is, for instance, a slab of sandstone which, when quarried, weighed nearly one ton. The sand has been removed, so that hundreds of bones of the early horned rhinoceros stand out in admirable relief, "just as they have lain since that long-ago day when the animals died and left their bones to drop into the depositing sand and where they have endured in practically perfect form." And not far away are skeletons of four crocodiles, several rhinoceroses, two nearly complete skeletons of the three-toed horse, fifteen saber-tooth tiger heads and two skeletons, as well as specimens of other curious animals of days when animals were plentiful on the earth. Decidedly it is not strange that visitors to this museum are increasing rapidly. The 4000 of 1924 became 16000 in 1927, and the number still grows.

Back into the hills from Rapid City. The transition is sudden. From the ridge that rises above the nest in the hills where Rapid City is built, the eye looks down the fertile, irrigated Rapid Valley, across to the Bad Lands. To the west are the peaks about Harney. In between are upland pastures, and beyond the trees of the beautiful Black Hills National Forest, where hidden creeks and mountain meadows contrive to lure the traveler away from traffic officers and factories. Those fortunate enough to yield to the temptation to go that way cannot forget the canyon road, close to Battle Creek, then across the ridge. Those Norway pines, bending to meet each other across the road that winds up and down, amid the rocky pinnacles! On one side, below the road, are the deep, trout-filled waters of Battle Creek, while far aloft on the other side a precipice of granite, with a pronounced human face for a terminal, deserves a name which no one thinks to give in a country so prodigal of unique land-

In Colorado Canyon, west of Minturn, Colorado

The First Photograph of Mountain of the Holy Cross, taken in 1873 by W. H. Jackson

marks. It is enough that the creek is a monument to a contest between the whites and the Indians.

Yonder hillside tells of the Holy Terror Mine, once the richest property in all the region. But property ended when a flood led to the loss of the vein. All efforts to find it have been fruitless.

How the tragedy and triumph of the search for gold is impressed by a score of landmarks! Here is Pactola, whose settlers chose the name from Pactolus, the Greek River of the Golden Sands. Farther north lies Lead, the strangely picturesque town built above and around underground veins and an unsightly open cutting, into whose greedy maw buildings once used for business or for homes are tumbling. But who cares? For this is the center of what has been called "the richest hundred miles square on earth." The single mine that gives Lead prosperity—the Homestake Mine—produces $6,000,000 of the precious metal each year. Tracks laid in sixty miles of tunnels provide outlet for the ore to the shafts "through which it is raised by huge electric or steam hoists to the top of the mountainside on which the plant is situated," runs the lively description of the guide through this wonderland. "Then it is started on a downhill journey through crushers and mills, amid a din so tumultuous that a shout is hardly a whisper, over the mercury plates where the free gold is removed as amalgam, and finally through the cyanide plants where most of the remaining gold is dissolved by a solution of sodium cyanide!" Strange mining this, to those whose crude but fruitful method was to pan the gravel in the stream for the surface nuggets! Now the gold is gone from the stream. The water is still there—if this can be called water that flows in such disreputably dirty streams from the gold mills of this treasure-chamber of the hills.

Then there is Deadwood. Forty years ago the Black

Hills meant Deadwood, the center of all that was wild, the synonym of everything disreputable and alluring. Built along Deadwood Gulch, which the miners found choked with trees from the forest on the steep slopes above, it is picturesque still, though the evil days have departed. The best view of the town is reserved for those who climb the tortuous road to the summit of Mt. Roosevelt, where the local admirers of Theodore Roosevelt built the first monument erected to his memory. As the fascinated climber stands before the monument, he does not know whether to prefer the view spread out at his feet, or to look far off to Wyoming and Montana, South Dakota and North Dakota.

Once more the road beckons those who would see the Black Hills in their glory. Southwest now, through Ice Box Canyon—surely they have plenty of color in their names!—where the spruce trees grow tall and dark; to Cheyenne Crossing, where modern highways mark the intersecting trails of the pioneers; turning aside to go down leafy, mysterious Spearfish Canyon to Rough Lock Falls, hidden away so that they may be revealed with sudden effectiveness; then back to the Crossing, and on up the creek in full enjoyment of what is one of the finest trips in the Black Hills. On the right a beetling wall of granite rises tremendously; on the left the creek hurries over the stones and down steep slopes, impeded now and then by beaver dams, until, surprisingly soon, the spring-fed body of water becomes a mere trickle. Watch three grotesque ground hogs as they lumber across the road! See Hell's Gate—the break in the granite wall!

When, on July 23, 1874, the party of General Custer and William Ludlow entered the Black Hills, passing Inyan Kara Mountain, one of the landmarks of the Western Hills, they came on just such granite monuments. "Castle Valley" was the name Ludlow gave to "a place

where a limestone ridge had weathered into castellated forms of considerable grandeur and beauty." Once he told of seeing what suggested "the ruin of an old fortified city fairly laid out with bastions and curtains, with sally-ports guarded with towers." Again the party came to what they called Custer Floral Valley, filled with greatest profusions of wild flowers, in almost incredible variety and color. Long they rode through beds of bloom which still are typical of this favored region. Wherever they turned they found beaver dams which made progress difficult.

Chapter XX

MAKING WYOMING GIVE UP HER SECRETS

Now out of South Dakota, into Wyoming, soon to stop to drink in the beauty of the broad valley overlooking Newcastle!

But first came a road that was a prophecy of the splendid highway that now invites the traveler. The journey over the road of prophecy was full of anxious moments. The only good thing about it was that it gave such wonderful opportunity to think of the good roads back in South Dakota, and the splendid Wyoming highway that was to come so soon.

There was no chance for detours. So often we went out on the more or less level ground at the side of the road. There we traveled on faith. "No bottom!" might well have been posted as warning signs.

"Don't worry about this!" the driver said. "There's a hill ahead."

There was. A rather difficult hill—soft dirt and sand, in process of grading, wet from repeated rains, and full of small boulders. In the middle of the hill there was a gate—a rickety structure of barbed wire and cottonwood stakes that collapsed like an accordeon as soon as it was released from its baling-wire fasteners.

"You ask what a gate is here for?" said the driver. "Well, there are two or three farmers who think they will play safe. Wyoming has agreed to pay for a right of way through their land, but payments have not yet

been made. So they refuse to open the route; they fear the road will be ready before they know it, and that all their hope of easy money will be gone."

Another gate. And the top of the hill still far away. "Better close that one, Tom!" said the driver. "It's in sight of the house, and we may need a tow from that farmer."

The top of the hill at last. A sigh of relief. "An hour and a half before train time, and only twenty miles to Newcastle!" was the satisfied remark of one passenger.

The driver said nothing! He knew. He had visions of another hill ahead. "A terror!" he called it.

And it was a terror. Picture a six per cent slope, shaped like the letter C, and half a mile long. Let the surface be loose dirt in which the wheels sink nearly to the hub. Sprinkle stones of generous size through the sand and loam. Place half-a-dozen stalwart teams drawing scrapers at indecent intervals, on the worst part of the heart-breaking slope.

How the powerful machine labored! Yet it conquered the grade by slow degrees. The going was awful, but we were still moving when a teamster blocked the way. "Turn round and go back to the detour!" he shouted. "Didn't you see the plain sign?" We had seen it—but the sign was the only thing plain about the road. So we had gone on to grief.

Six passengers decided to walk and let the engine try again. The walk proved a good chance to see why the automobile gasped until it seemed ready to die. Set on end a plowed field, a field of New England stones, with disgracefully plentiful Wyoming soil, on a West Virginian hillside. Then take a before-breakfast stroll there.

Those who looked down at the car, striving so nobly, resigned themselves to an idle day at Newcastle. What a

tragedy! How easy it is to make mountains out of molehills!

"Unhook the scraper and fasten your team to this machine!" our driver commanded the worker on the road. The driver was young, but, fortunately, the road-worker was younger still. He recognized the voice of authority. The horses strained, the engine breathed defiance, and soon the automobile halted by the pedestrians on the hilltop.

Eighteen miles to go, and thirty minutes available! That seemed all right, until we saw the road. The gumbo was slippery, sticky, gripping wheels most affectionately. What a ride that was! Forty miles an hour over a road built for fifteen! Caution said slow up for the mud holes, but anxiety drove us on.

At last the good road came. But what a grade! What curves! And what an abyss to the left! But what a glorious view as we came out on the shelf overlooking the valley of Salt Creek, which is fed by great springs whose water is more salt than that of the Pacific! Five miles of this glorious prospect. In spite of repeated curves we traveled at breakneck speed. It is fine to take curves at fifty miles an hour—after the trip is over!

"Here we are! And here's your train!" was the driver's greeting as the automobile halted at the Newcastle station, close to the three-story stone hotel built some years ago by an investor who then had more faith in the town's future than now he has dollars. For the boom of Newcastle died quietly, and the plate-glass windows are broken and sad.

Newcastle is on the Custer Battlefield Hiway, which cuts the northeastern section of the State, and enters Montana near Billings. A branch of the highway approaches close to The Devil's Tower, a National Monument under the National Park Service, one of the State's

marvels that is visited by comparatively few. But those who have looked up to the strange bulk as it rises from the bank of the Belle Fourche River agree that it is worth the detour, even though the road to it is still far from what the authorities hope to make it. The day will come soon when it will be possible to approach this National Monument by a journey northwest from Deadwood and the northern Black Hills, in spite of the difficulties of road building in the rough, rocky, pine-covered country about the tower.

Mateo Tepee was the name given by the Indians to this landmark, which can be seen in some directions for from seventy to one hundred miles. Both pioneers and military leaders in the Indian wars valued it as a guide to their movements. "The Devil's Tower" is the usual name given to it; this name is due to the Indians' descriptions of it as "The Bad God's Tower." General Scott says this formation was called Bear Lodge. An early explorer said that, at a distance, "it resembled not a little the unfinished Washington monument at Washington City, with the difference that Nature has completed her work." The inaccessible rock rises almost perpendicularly more than six hundred feet above an irregular base, while the base is six hundred feet above the river. The greenish color of the rock, and the division of its perpendicular surface into fluted columns, with four, five or six sides, fascinate the beholder. These columns, though some six feet in diameter, seem comparatively small because of the great bulk of the whole mass, which is "bunched together like a bundle of matches."

Geologists say that the columns came because when igneous rocks cool they are apt to take such a form. The tower, we are told, is all that remains of an old volcano; the cone was eroded away by the action of the elements.

In cooling the rock formed into interlocking hexagonal columns.

But the Indians' explanation is far more picturesque. They tell of three Indian girls who went into the fields to gather wild flowers. Their interest in the blooms was so great that they forgot warnings of danger to be feared when they were far from the parental tepee. They became aware of peril only when three bears confronted them. In their fright they looked for refuge, and could see nothing but a high rock. They managed to clamber to the top. But the bears climbed after them, using their claws on the steep sides. In an agony of fear, the girls called for aid. One of the gods heard them, and lifted the rock higher and still higher. The bears climbed on, but the summit of the rock was always a little above them. At length the animals, exhausted, fell, but not until they had scratched the sides of the rock in agonized effort to avert the drop to death on the rocks below. The grateful maidens twined ropes of the flowers they had gathered, and lowered themselves to safety!

Instead of following the Battlefield Hiway from the Devil's Tower over the Montana boundry, many travelers prefer to turn to the left to the frowning Big Horn Mountains which rise abruptly from the Great Plains to a height of more than 13,000 feet above the sea. Among these mountains the Indians were accustomed to go, not only to hunt, but for some of their strange religious rites. Visitors to Medicine Mountain may see the curious gigantic Medicine Wheel, outlined with stones on the rocky surface. This curious wheel of stone is perhaps 75 feet in diameter, and there are 28 spokes, also of stone. The Crow Indians who live near by cannot tell of its origin or its use. Yet it was used frequently, for, as George Bird Grinnell says, "a broad and well-worn travois trail runs up along the side of the mountain, and it is visible

at a distance of two or three miles, looking like a broad, white wagon road."

Several small glaciers and perhaps three hundred lakes are hidden in mountain fastnesses. The meadows about some of these lakes were the hiding place of the last of the buffalo, when they were driven from the plains by the merciless activities of the exterminating hunters. There they perished of hunger, and visitors may see their skulls here and there in the forest.

The Big Horn Mountains are covered to timber line with some of the finest forests of Wyoming, and more than one million acres are included in the forest reservation named for the mountain. Nearly eight hundred miles of horse trails make comparatively easy access to the delights of mountain, lakes, and canyon. These trails are supplemented by several hundred miles of road, including the Black and Yellow Trail. In many places the highway is a scenic marvel, especially Tensleep Canyon, the name given by the Indians because ten days were required to cross the mountain. A continuation of the road, beyond the Forest, to the southwest, leads to Big Horn Hot Springs, Thermopolis, and the Wind River Canyon. Those who have not been through this part of the State will wonder why travelers are so enthusiastic about it—until they take the trip themselves.

Most of those who cross the mountain today are pleasure-seekers. But in the summer of 1927 a company of Princeton professors and students climbed the Big Horn, wondered at the Tensleep Canyon, and then crossed over into the Big Horn basin, bounded on the west by the Absaroka Mountains. They were in search of the bones of animals of another age which had been deposited in the clay washed down from the mountain. These bones, turned to stone, have escaped destructive erosion, and seem to be waiting for students, there in the Wyoming

Bad Lands. A letter written by Dr. Sinclair, leader of the expedition, gives delightful hints of the activities of the party:

"Don't get the idea that we went out armed with pick and shovel, and, guided by some mysterious intuition, started digging for bones. It isn't done that way. You walk and walk and keep on walking and you use your eyes as you wander over the Bad Lands. The sun pours down on you (rain sometimes by way of variety) and the heat and sun glare beat upward from the bare clay rocks, unbroken by the scant gray-green vegetation. If you are in luck, and the gods of the bone-diggers favor, you may, ultimately, find a jaw fragment or some other bone long since petrified, more or less coated with lime or red oxide of iron. Rain, snow, and wind have done the digging for you and there may be nothing more to do but pick it up, wrap the treasure in paper and stow it away in pocket or collecting bag. Many a piece of bone is not worth taking, and these of course are left behind. The experienced collector, before he moves on, always satisfies himself that such fragments are not part of something more complete beneath the surface and that is where the digging comes in. A few careful strokes with the pick or a little scratching with an awl may reveal something which will keep you very busy for a week."

In the summer of 1928 another Princeton University expedition sought this mining ground for the bones of prehistoric animals where, during the Eocene time, some thirty or more million years ago, streams charged with silt and sands from the mountains wandered back and forth across the basin depositing great thicknesses of sediment as it gradually sank. Preserved in the silt are the bones of strange mammals.

But it is not easy to find these bones. "Imagine hunting for three collar buttons lost somewhere in an area of tan

and red and gray and purple rocks and sands!" says a Princeton geologist. Roads to the ancient silt beds were plentiful, though they were hardly what an automobile tourist would demand, since a road there consists of a trail over which some one has coaxed a vehicle (usually a sheep wagon) at least once before!

Access to many other recreation areas in Wyoming including its two glorious national park areas is given through the National Forests, which cover more than an eighth of the entire area of the State. One of the finest of these forests is in the mountain region of the southern part of the State, west of Laramie. This attractive city, by the way, must not be confused with Fort Laramie, long a post of importance, some distance to the northeast, near the junction of the Laramie and the North Platte Rivers. The location of the fort appealed to John C. Fremont when, in 1842, he visited the site and declared that a military post should be maintained on the Platte, and in this neighborhood, since a show of military force was absolutely necessary. Perhaps his desire to impress the Indians with the power of the American people was responsible for his taking with him a howitzer as part of his equipment, as well as a quantity of ordinary arms. When he was well on his way to Wyoming Mrs. Fremont, who was still in the East, opened an order from Washington directed to him, telling him to return and give an explanation of the howitzer; his was a mere scientific expedition, he was told. But Mrs. Fremont thought she saw back of the order the purpose to break up the expedition. So she suppressed the order, and wrote to her husband to hurry on his way. Of course there was an investigation when the explorer returned. But nothing came of it!

Now to return to the Medicine Bow National Forest, to the west of Laramie. This reservation takes its name

from the custom of the Indians to seek mountain mahogany from which they formed their bows—medicine bows, they were called. Near by were great stands of straight pine trees, from which they cut poles for their lodges. For this reason the name "lodgepole pine" is given to the trees chosen for the purpose, trees so characteristic of many of the Rocky Mountain forests. Today from these are cut railroad ties by the hundred thousand. These are floated down creeks to the North Platte, and then to the place where they are to be used. The sight of these waters in tie-floating season is something to be seen and remembered. Roads and trails make accessible many parts of the forest and the mountain about which the trees cluster. At one place the Lincoln Highway reaches a point nearly nine thousand feet high. Still more lofty are the portions of the Hayden Forest, a little farther west, which are on the Continental Divide, though to the west and the north the mountains in the Forest descend rapidly to the plain. Trails lead to many lakes and streams, hidden away where only those who delight in the wilderness can find them.

To the north of Hayden Forest is Independence Rock, that landmark of the pioneers who followed the Oregon Trail. On this rock, in 1842, Fremont carved a symbol of the Christian faith, then passed on a few miles to the point where the Sweetwater River enters the North Platte. There he tried to launch three canoes. With two he was successful. The third brought difficulty. The story of his adventures with this canoe is worth reading, not only because of its thrills, but because it reveals much concerning the superlative attractions of the country about Independence Rock:

"We had made fast to the stern of the boat a strong rope, about fifty feet long, and three of the men clambered along among the rocks, and with this rope let her down

slowly through the pass. In several places high rocks lay scattered about in the channel; and in the narrows it required all our thought and skill to avoid staving the boat on the sharp points. In one of these the boat proved a little too broad, and stuck fast for an instant, where the water flew over us; fortunately it was but for an instant, as our united strength forced her immediately through. The water swept overboard only a sextant and a pair of saddle bags. I captured the sextant as it passed by me; but the saddlebags became the prey of the whirlpool. We reached the place where Beuss was standing, took him on board, and, with the aid of the boat, put the men with the rope on the succeeding pile of rocks. We found the passage much worse than the preceding one, and our position was rather a bad one; before us, the cataract was a sheet of foam; and, shut up in its chasm by the rocks, which in some places seemed almost to meet overhead, the roar of the water was deafening."

. . . "We cleared rock after rock, and shot past fall after fall, our little boat seeming to fly with the cataract. We became flushed with success. . . . Singing, or, rather shouting, we dashed along. . . . The boat struck a concealed rock immediately at the foot of a fall, which whirled her over in an instant. Three of my men could not swim, and my first feeling was to assist them and save some of our effects; but a sharp concussion or two convinced me that I had not yet saved myself. . . . For a hundred yards below, the current was covered with floating books and boxes, bales of blankets and scattered articles of clothing; and so strong and boiling was the stream that even our heavy instruments, which were all in cases, kept on the surface, and the sextant, circle, and the long black box of the telescope were in view at once. For a moment I felt somewhat disheartened. All our books—almost every record of the journey

—our journals and register of astronomical and botanical observations—had been lost in a moment. But it was no time to indulge in regrets; and I immediately set about endeavoring to save something from the wreck."

For many miles to the west of the region of Fremont's adventure, the mountains are low, descending to the Great Basin, which has many attractions of its own. But the higher mountains are encountered again in the Wyoming National Forest, on the western border of the State, near the headwaters of the Green, the river which helps the Colorado to form the canyon habit. Ice fields hidden away in the peaks of the Wind River Range on the east, the less lofty Salt River Range on the west with its little peaks, and the Green River Lakes are much sought by those who visit the forest. New Fork Lake, with its rocky shores, its lofty pines, and the mountains which come down to the shore, is a rare beauty spot.

To the north of the Wyoming Forest is the largest forest area in the State—the Teton National Forest. In many respects it is the most wonderful. Jackson Hole is, roughly, in the middle of the forest—or, as a publication of the United States Forest Service says, the "forest encircles Jackson Hole like a lopsided doughnut."

For the most part the mountains here are not lofty; this fact makes the great snow-clad Teton Peaks in the newly created Grand Teton National Park the more remarkable. Other lofty peaks are in the near-by Washakie Forest, named for the Shoshone chief Washakie, who found delight in climbing among them and in following the steep-walled valleys of the stream.

To-day automobiles may go to many places where the old chief climbed, but most of the significant spots in the Washakie are to be found only by those who are ready to take the rough trails into the highlands. Gannett Peak is 13,875 feet high, while the lowest peak in

Bad Lands near Scenic, South Dakota

Devil's Tower and Missouri Buttes, Wyoming

Lodgepole Pine and Red Fir, Shoshone National Forest, Wyoming

Sun Dance Mountain, where the Sun Dance of the Indians was given, Wyoming

the reservation is more than half this height. Those who enter the Forest by the Yellowstone Highway, or the Rocky Mountain Highway find endless invitations to leave the car for the improved trails to Christian and Gustave Lakes, or for the much rougher yet altogether practicable trails to Frontier Creek and Brown Canyon, or through the Washakie, Greybull and Union Passes. Glaciers, too, give lessons in the age-old art of grinding rocks to powder. In the Wind River Mountains these ice streams abound.

The Wind River Mountains, the Continental Divide Range, was crossed in 1842 by Fremont's party. On August 15 he raised on the top of the mountain to which his name was given a flag bearing the Stripes and a field in which an eagle soared between rows of thirteen stars. Several attempts to reach the summit failed, but at last the leader of the party stood where "another step would have precipitated me into an immense snow field five hundred feet below." The place where he stood was a narrow crest, about three feet wide. After his descent, each man in the party followed, one by one. They wanted to go in company, but Fremont felt that this was too risky, since the slab looked as if a breath would hurl it into the abyss. Finally the flag was flown from a ramrod fixed in a crevice of the rock. The barometer was fastened in the snow, and an elevation (so the party estimated) of 13,570 feet was indicated. (The correct figure for the peak is 13,790 feet.) Fremont was commenting on the stillness, there was not a sign of life, when suddenly a bumblebee lit on the knee of one of the men—"the highest known flight of the insect," wrote the observant explorer. He thought that he and the bumblebee had found the highest point of the Rocky Mountains.

Still farther north is the Shoshone Forest. But word

of this forest was given in Chapter I. In the fastnesses of this forest wilderness rises Clark's Fork, which seeks the waters, over the Montana border, of the Yellowstone just before thriving Billings is reached—a city cradled in the hills, gateway to wonders to northwest, to west, to southwest. The youth of this bustling community is indicated by the morning paper which can do no better in the backward glance so popular with space fillers than to talk of "Billings 45 Years Ago Today." Items in that stereotyped column told of a frontier saloon brawl; the arrival of two train loads of cattle; the rich product of a new gold mine; the visit of surveyors for the ceded strip of the Crow Indian reservation; the passage through town of Chief Moses and members of his tribe, who paused long enough in their journey toward Washington to show that they could conduct themselves at the table as though they were accustomed to the use of knives, forks and napkins!

To-day those who wish to see Indians who are accustomed to far more of the white man's ways need only to watch the residents on the Crow Reservation as they approach Billings, with their cosy houses, fine barns, well-tilled fields, and high-powered automobiles.

But the traveler's desire for a sight of the customs of other days is gratified, as the train pauses on the Custer Battlefield, where a brave beats the tom-tom, while his wife sells postcards and his two children go through the measures—measures stately or uncouth, as the observer thinks.

Even more interesting than the Indians were the two cars on the highway, whose drivers were so intent on the spectacle by the roadside that they forgot to watch one another. The leading car stopped, and the car behind mounted it like a charging buffalo. The angry words that followed were silenced quickly as the victim

and victimizer turned again to follow the antics of the painted man of the reservation who proclaimed himself, "Me wild Indian."

Little more than fifty years have passed since General Custer's most bloody defeat on the uplands beyond the track, which are marked by great signs so placed that those who pass on the train or on the highway may follow the movements of that day of blood which history speaks of as a massacre, though the Indians have declared always that it was a battle between the host of those who had a valid grievance, and the representatives of those who had despoiled them.

That battle practically marked the end of the west of desperadoes and of Indian depredations. The real frontier had passed away.

But the West that is characterized by the splendor of mountains, the grandeur of canyons, cataracts and torrents, and the beauty of an immense forest domain, will never pass away. And for this the heartfelt appreciation of a nation is due to the careful guardianship of the National Park Service and the United States Forest Service. Individually and in coöperation these agencies are preserving for us and for the generation to follow us the glory of the West.

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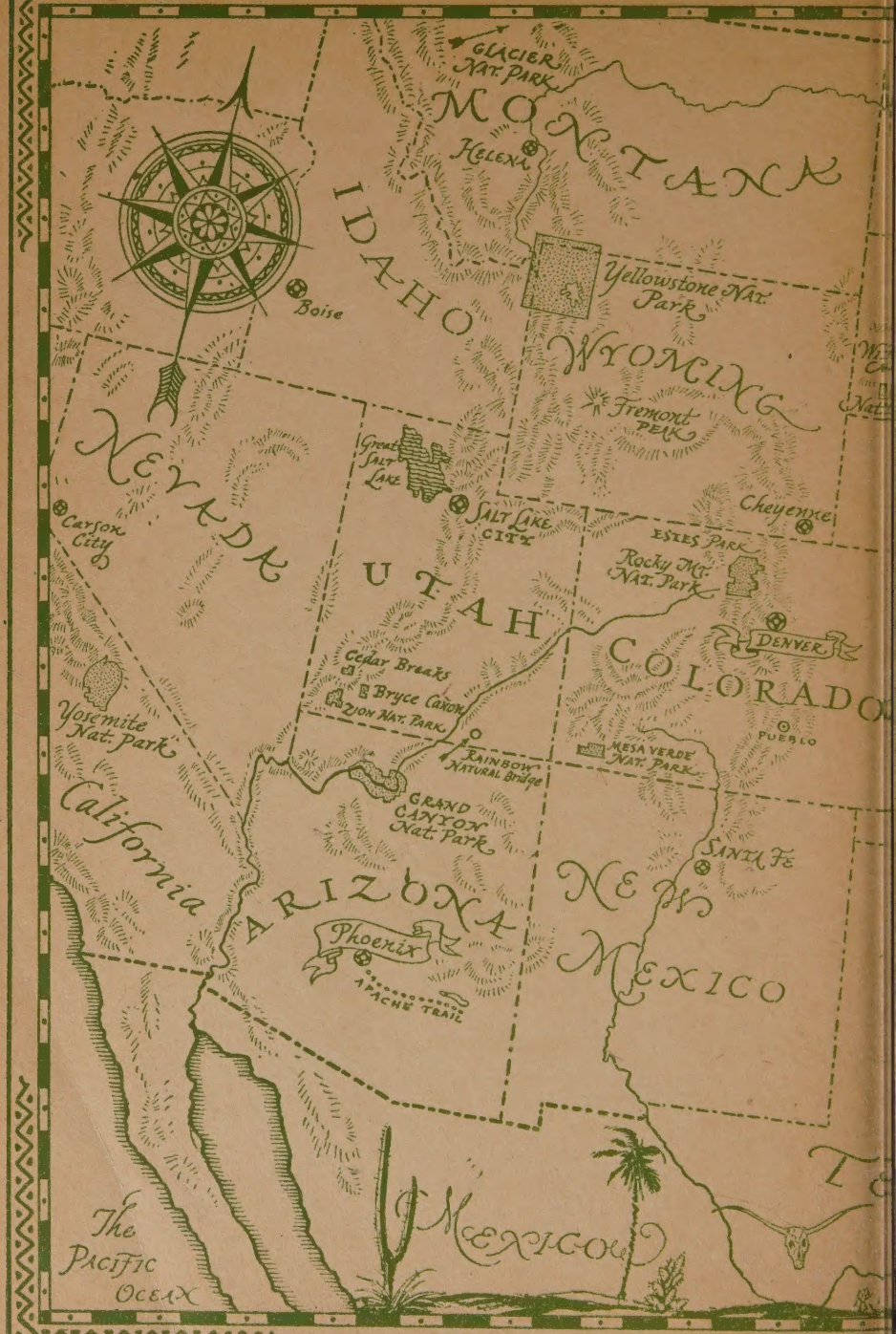
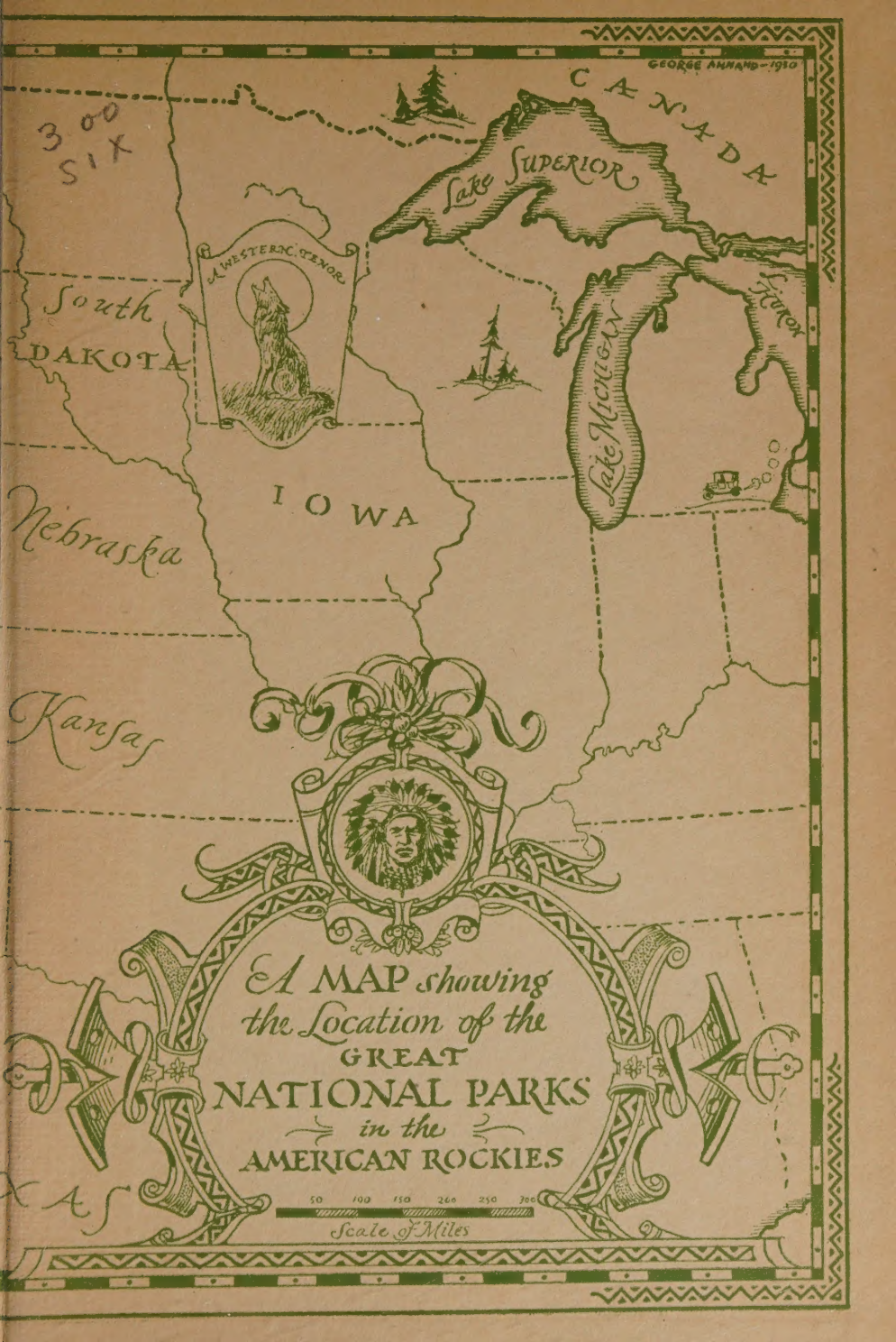

GLACIER NAT. PARK
MONTANA
Helena
IDAHO
Boise
Yellowstone Nat. Park
WYOMING
Fremont Peak
NEVADA
Great Salt Lake
Carson City
SALT LAKE CITY
Cheyenne
ESTES PARK
Rocky Mt. Nat. Park
UTAH
DENVER
COLORADO
Cedar Breaks
Bryce Canon
ZION NAT. PARK
Yosemite Nat. Park
PUEBLO
MESA VERDE NAT. PARK
RAINBOW NATURAL Bridge
GRAND CANYON Nat. Park
California
SANTA FE
NEW MEXICO
ARIZONA
Phoenix
APACHE TRAIL
MEXICO
The Pacific Ocean


GEORGE ANNAND - 1930
CANADA
Lake SUPERIOR
Lake MICHIGAN
South
DAKOTA
IOWA
Nebraska
Kansas
A MAP showing
the Location of the
GREAT
NATIONAL PARKS
in the
AMERICAN ROCKIES
50 100 150 200 250 300
Scale of Miles